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COMBAT SYSTEM MAINTENANCE EFFECTIVENESS BASED ON 3M DATA

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Navy Personnel Research and Development Center San Diego, California 92152

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20 ABSTRACT (Continue on reverse side if necessary and identify by block number)

A Combat System Department was implemented aboard selected pilot ships with the goal of improving maintenance effectiveness. Pilot and control ships were compared on the basis of data collected and supplied by the MSO 3M reporting system. The data failed to demonstrate that improved maintenance effectiveness resulted from implementation of the new organizational structure.

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FOREWORD

This study was conducted in support of Advanced Development Subproject ZPNO7.22 (Combat System Personnel Training and Management) under the sponsorship of the Chief of Naval Operations (OP-39). The report is one of a series concerning the maintenance effectiveness of ships having an experimental combat system organizational structure.

The cooperation and assistance of the Maintenance Support Office Department, Mechanicsburg, PA, in supplying data, and of Mr. John G. Balaban and Mr. Rocco J. Cicchetti, NPRDC, in planning and accomplishing computer data processing are gratefully acknowledged.

J. J. CLARKIN Commanding Officer

SUMMARY

Problem |

Computerization and automation have integrated shipboard weapons subsystems into modern combat systems, but management of the personnel responsible for subsystem maintenance has not been integrated. This may be a factor contributing to the less-than-optimum electronic readiness of Navy ships.

Purpose

The purpose of this effort was to compare the maintenance effectiveness achieved by ships having the experimental combat system organizational structure with that achieved by ships having conventional organizational structures.

Approach

Pilot and control ships were compared on the basis of maintenance effectiveness on common subsystems as determined by the 3M Record Layout. Equipment configuration was considered in matching pilot and control ships. Insofar as was possible, data were taken from comparable operational periods. The measures of maintenance effectiveness were: (1) number of maintenance actions, (2) proportion of personnel-caused equipment malfunctions, (3) total days of downtime, (4) average days of downtime per maintenance action, (5) total manhours of maintenance, and (6) average man-hours required per maintenance action. Separate analyses were performed for maintenance actions that were deferred for spare parts or outside assistance.

Results

Of 300 comparisons between pilot and control ships, 177 showed no significant difference in maintenance effectiveness, 79 appeared to favor control ships, 32 appeared to favor pilot ships, and in 12 cases the data were insufficient for statistical analysis. Half of these 300 comparisons were based upon frequency data, the assumption being that ships with low frequency of repair, total downtime, and total man-hours of maintenance would have a high degree of electronic readiness. There is a possibility, though, that low frequency data represent failure to report equipment malfunctions and that this is not randomly distributed between pilot and control ships. If this were true, maintenance frequency data could have a meaning exactly opposite to that assumed. It was decided, therefore, to do a separate analysis of half of the 300 comparisons that were free of this potential source of experimental error. Of 150 measures based upon the proportion of personnel-caused equipment malfunctions to the number of maintenance actions, and average downtime and man-hours required per maintenance action, 119 indicated that there was no significant difference in maintenance effectiveness, 13 favored control ships, 12 favored pilot ships, and in 6 cases the data were insufficient for statistical analysis. Thus, with an elimination of frequency data, the apparent differences between pilot and control ships disappear.

Conclusion

Overall, the data fail to demonstrate that improved maintenance effectiveness has resulted from implementation of the combat system organizational structure.

Recommendation

The present study concerns itself solely with maintenance effectiveness as defined herein. The pilot organizational structure also has had other impacts (e.g., on management relationships, career development, and crew morale) that are only partially related to maintenance effectiveness and that merit separate consideration. All of these factors, several of which will be summarized in a forthcoming final report (Note 5), should be weighed before a decision is made concerning the effectiveness of the combat system organizational concept.

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INTRODUCTION

Problem

Traditionally, shipboard weapons subsystems such as anti-submarine, anti-aircraft, and electronic warfare have been somewhat independent. The introduction of complex computers and automation has led to the integration of these subsystems into what is now referred to as a ship's combat system. Management of the personnel responsible for maintaining these subsystems, however, has not been integrated, and this may be a factor contributing to the less-than-optimum electronic readiness of Navy ships.

Purpose

The purpose of the present study was to compare the maintenance effectiveness achieved by selected pilot ships having the experimental combat system organizational structure with that achieved by selected control ships having conventional organizational structures.

Background

The combat system research program was initiated by the Bureau of Naval Personnel with the publication of a plan (Note 1) for developing and evaluating an improved combat system organization. Included in the plan was a new concept in shipboard organization—the integration of personnel who maintain ship's sensors and weapons subsystems into a single Combat System Department. NPRDC was assigned the task of evaluating the new concept (Note 2). Evaluation was to be added to the regularly scheduled mission and activities of pilot ships, and no changes were to be made in the mission and activities of control ships.

An initial evaluation, covering only three pilot ships, is described in an earlier report (Williams & Standlee, 1975). The present evaluation replicates the data gathered on these three ships and includes data from four additional pilot ships.

APPROACH

As the evaluation was to be an added feature and as ships' operating schedules could not be standardized, analysis of data provided by the existing 3M reporting system was selected as an evaluation method that would minimize interference with ships' day-to-day operations.

Selection of Pilot and Control Ships

Equipment configuration was considered in matching pilot and control ships (Note 3). Individual ship evaluations are not identified in this report. Collectively, however, the pilot ships were USS HALSEY (CG 23), USS JOUETT (CG 29), USS TRUXTON (CGN 35), USS MACDONOUGH (DDG 39), USS MAHAN (DDG 42), USS DAHLGREN (DDG 43), and USS PRATT (DDG 44). The control ships were USS WORDEN (CG 18), USS DALE (CG 19), USS TURNER (CG 20), USS ENGLAND (CG 22), USS WAINWRIGHT (CG 28), USS HORNE (CG 30), USS STANDLEY (CG 32), USS FARRAGUT (DDG 37), USS LUCE (DDG 38), USS COONTZ (DDG 40), USS DEWEY (DDG 45), and USS PREBLE (DDG 46).

Selection of Operational Periods

Pilot ships entered the experimental program at different times, generally following a period of equipment moderization. Data-gathering time spans ranged from 5 to 23 months. To allow stabilization of both hardware and experimental organizational structure, no data were gathered within the first three months of a ship's entering the pilot program. Pilot and control ship comparisons are based upon the same number of months and, when possible, on the same calendar months. In some instances—for more comparable data in terms of repair and overhaul, post-shakedown availability, and extended overseas deployment periods—different calendar months were used.

Identification of Common Subsystems

A computer search of relevant 3M data (Note 4) indicated that there was little commonality between specific equipments on board pilot and control ships. The decision was made, therefore, to compare maintenance performance at the subsystem level as determined by the first two digits of the Equipment Identification Code (EIC). Thus determined, all comparisons between pilot and control ships were based upon the maintenance of common equipment subsystems.

Selection of Criteria

The following criteria of maintenance effectiveness were selected from data collected and supplied by the Maintenance Support Office Department (MSOD) 3M reporting system:

- 1. Number of maintenance actions.
- 2. Proportion of personnel-caused equipment malfunctions ("lack of know-ledge or skill," and "communication problems") to number of maintenance actions.
- 3. Total days of downtime (nonoperational or reduced capability status), if repairs were not deferred for spare parts or outside assistance.

- 4. Same as item (3), except if repairs were deferred.
- 5. Average days of downtime per maintenance action, if repairs were not deferred.
 - 6. Same as item (5), except if repairs were deferred.
 - 7. Total man-hours of maintenance, if repairs were not deferred.
 - 8. Same as item (7), except if repairs were deferred.
 - 9. Average man-hours per maintenance action, if repairs were not deferred.
 - 10. Same as item (9), except if repairs were deferred.

Statistical Analysis

The comparison of maintenance effectiveness, based on common subsystems, is equivalent to an experimental design involving matched-pairs observations. The Wilcoxon Matched-Pairs Signed-Ranks Test was used for those evaluations based on the total and average days of downtime and on the total and average man-hours of maintenance. The Chi-Square Test was used for those evaluations based upon the number of maintenance actions, on the proportion of personnel-caused equipment malfunctions, and on a summary frequency distribution of the Wilcoxon Test results. All tests were made at the .05 level of significance.

RESULTS

Number of Maintenance Actions

The results of a comparison of pilot and control ship maintenance performance based on the number of reported maintenance actions are presented in Table 1. The length of the test period was the same for each pilot ship and its control, but varied from 5 to 23 months among the different pilot-control comparisons. Tests of significance are based upon the Chi-Square Test and are at the .05 level of confidence.

Table 1 indicates that, in 20 comparisons, control ships reported fewer maintenance actions; in 4 comparisons, pilot ships reported fewer maintenance actions; and in 6 comparisons, the differences were not significant.

The single fact that a majority of control ships reported fewer maintenance actions does not necessarily mean that electronic readiness was lower for pilot ships. There is a possibility that low frequency data represent failure to report equipment malfunctions and that this is not randomly distributed between pilot and control ships. This might mean, then, that pilot ships were more diligent in reporting maintenance actions or that—possibly through better test procedures and higher equipment performance standards—they located a greater percentage of their casualties. Thus, interpretation of the data of Table 1 concerning electronic readiness is uncertain.

Proportion of Personnel-caused Equipment Malfunctions

The results of a comparison of pilot and control ship maintenance performance based on the proportion of total maintenance actions that were caused by ships' personnel (i.e., equipment failure caused by "lack of knowledge or skill" or "communication problems") are presented in Table 2.

Table 2 indicates that, in 6 comparisons, control ships reported a lower proportion of personnel-caused equipment malfunctions and, in 24 comparisons, the differences were not significant. In terms of this criterion, control ships appear to have the advantage.

Downtime and Maintenance Man-hours

The results of a comparison of pilot and control ship maintenance performance based on days of downtime (non-operational or reduced capability status) and man-hours expended in making repairs are presented in Tables 3, 4, and 5. Table 3 compares performance based on casualties where repairs were not deferred for spare parts or outside assistance. Table 4 compares performance based on casualties where repairs were deferred. Table 5 summarizes the fairly extensive data of Tables 3 and 4.

Table 3 indicates that, in 16 comparisons, control ships reported fewer non-deferred days of downtime; in 2 comparisons, pilot ships reported fewer days down; and in 12 comparisons, the differences were not significant. In 15 comparisons, control ships reported fewer non-deferred man-hours of maintenance; in 1 comparison, a pilot ship reported fewer man-hours of maintenance; and in 14 comparisons, the differences were not significant.

 $\begin{tabular}{ll} Table & 1 \\ \hline \end{tabular} \begin{tabular}{ll} Differences & Between Pilot & and & Control & Ships & in \\ \hline \end{tabular}$

Number of Maintenance Actions

Sì	nip	(Months) ^a	Number	of Mainten	ance Actions	Fewer
Pilot	Control		Pilot	Control	Difference	Actions
		Rep 1	ication o	f Initial	Ship Data	
1	1	(11)	222	233	-11	
1		(22)	740	660	80	C
1	2 3	(22)	768	475	293	С
1	4	(13)	245	382	-137	P
1	5	(12)	220	58	162	С
2	6	(23)	857	901	-44	
2	7	(23)	858	1149	-291	P
2 2	8	(23)	843	460	383	С
2	9	(19)	728	245	483	С
3	10	(15)	744	220	524	С
3	11	(15)	846	888	-42	
3	12	(15)	832	846	-14	-
		- 98	Additiona	1 Ship Dat	a	
4	1	(11)	260	238	22	10 00 <u>1</u> 000 100
4	2	(18)	707	395	312	C C
4	3	(18)	719	311	408	C
4	4	(14)	545	385	160	C
4	5	(12)	423	58	365	С
5	1	(11)	332	236	96	С
5	2	(17)	652	379	273	C
5	3	(17)	663	279	384	C
5	4	(12)	420	378	42	c
5	5	(12)	373	58	315	С
6	1	(7)	387	205	182	С
6	2	(7)	388	197	191	C
6	3	(7)	381	74	30 7	C
6	4	(7)	382	249	133	C
6	5	(7)	303	25	278	С
7	10	(5)	27	6	21	С
7	11	(5)	35	155	-120	P
7	12	(5)	36	155	-119	P

Note. Significantly fewer maintenance actions in pilot ships is indicated by "P", in control ships by "C"; no significant difference is indicated by "-". Tests of significance are based on the Chi-Square Test, equal ratio hypothesis, .05 level of confidence.

^aPilot and control ships were not always matched on the same calendar months; therefore, frequency data may differ for the same number of months.

Table 2

Differences Between Pilot and Control Ships in

Personnel-caused Equipment Malfunctions

Sh	i p	Nı		1functions	Lower
lot	Control	Pilot	Control	Difference	Proportion
		Replication	of Initia	al Ship Data	
1	1	4	0	4	С
1	2	10	16	-6	-
1	3	13	3	10	-
1	4	5	5	0	-
1	5	5	0	- 5	-
2	6	22	19	3	-
2	7	23	11	12	C
2	8	23	1	22	C
2	9	15	1	14	-
3	10	19	2	17	-
3	11	19	12	7	_
3	12	19	7	12	С
		Addi	tional Shi	p Data	
	1	4	0	4	
4	1 2	18	4	14	_
4	3	18	2	16	C
4	4	10	5	5	-
4	5	9	0	9	<u>-</u>
		3	0	3	
5	1	3	4	-1	
5	2 3	3	2	î	_
5	4	3	5	-2	-
5 5	5	3	0	3	-
		9	0	9	С
6	1	9	2	7	
6	2	9	0	9	_
6	3	8	3	5	
6	4	5	0	5	
6	5	3			
7	10	0	0	0	
7	11	0	6 2	-6 -2	
7	12	0	2	- 4	

Note. Significantly lower proportion of personnel-caused equipment malfunctions in pilot ships is indicated by "P", in control ships by "C"; no significant difference is indicated by "-". Tests of significance are based on the Chi-Square Test, equal proportion hypothesis (data of Tables 1 and 2 combined), .05 level of confidence.

Table 3

Differences Between Pilot and Control Ships in

Days of Downtime and Maintenance Man-hours (Without Deferral)

Sh	ip		ver Downtime		ewer ice Man-hours
ilot	Control	Total	Average	Total	Average
		Replication o	of Initial S	Ship Data	
1	1		-	-	-
1	2	-	-	-	-
1	3	-	-	С	-
1	4	-	-	-	-
1	5	-	-	-	<u>-</u>
2	6	Р	P	-	
2	7	-	-	-	-
2	8	C	С	C	-
2	9	С	-	С	С
3	10	С		С	-
3	11	C	-	C	-
3	12	C	С	1	•
		Additio	onal Ship Da	ita	
4	1	С	-		-
4	2	C	-		-
4	3	C	-	C	-
4	4	-	-		-
4	5	С	-	C	-
5	1		P	-	-
5	2		-	-	-
5	3	C	-	С	-
5	4	-	-	-	-
5	5	С	-	С	•
6	1	С	-	С	
6	2	C	-	C	P
6	3	C	-	C	-
6	4	C	-	C	
6	5	С	-	С	-
7	10	_	-	С	
7	11	P	-	-	-
7	12	-	-	P	-

Note. Significantly fewer days of downtime or maintenance man-hours in pilot ships is indicated by "P", in control ships by "C"; no significant difference is indicated by "-". Tests of significance are based on the Wilcoxon Matched-Pairs Signed-Ranks Test applied to the raw data presented in the appendix, .05 level of confidence.

Table 4

Differences Between Pilot and Control Ships in

Days of Downtime and Maintenance Man-hours (With Deferral)

		Fewe		Maintanan	ewer ice Man-hours
Sh	Control	Days of D Total	Average	Total	Average
100	Control				
		Replication of	Initial Sh	nip Data	General To the
1	1	<u>-</u>	-	-	P
1	2		-	P P	P
1	3	-		p	Ball of the racks
1	4	P	-		
1	5				
2	6	P	-	-	- C
2 2	7	and the development first	Spirite Co.		C
2	8		escor Call to 18	c	
2	9	С	mo_F8_58_1	C	CON PORTO
3	10		-		a belon - To to
3	11	-	- I	P	
3	12	P	-	-	
	car labora di Albert	Addition	nal Ship Da	ita	n 10 milety
4	1	С		С	<u>-</u>
4	2	C	P	C	
4	3	C	<u>-</u>	-	P
4	4		P	C	C
4	5	C	-	С	ankarar sa s
5	1	С	С	-	-
5	2	C	_		
5	3	C	C	-	P
5	4	P	-	-	Security II
5	5	C		С	al arms 7 yes
6	1	P	(12 <u>12 13</u>		The state of the s
6	2	P	P	P	P
6	3			-	
6	4	P	P	P	•
6	5	-	-		n ev. 35 42
7	10	ID	ID	ID	ID
7	11	ID	ID	ID	ID
7	12	ID	ID	ID	ID

Note. Significantly fewer days of downtime or maintenance man-hours in pilot ships is indicated by "P", in control ships by "C"; no significant difference is indicated by "-" and insufficient data by "ID". Tests of significance are based on the Wilcoxon Matched-Pairs Signed-Ranks Test applied to the raw data presented in the appendix, .05 level of confidence.

Table 5

Summary of Differences Between Pilot and Control Ships in Days of Downtime and Maintenance Man-hours

(With and Without Deferral)

		Frequency		
Difference Variable	Pilot Ship	Control Ship	No Signifi- cant Dif	Total
Fewer Days of Downtime				
Total	9	25	23	57
Average	6	4	47	57
Fewer Maintenance Man-hours				
Total	7	21	29	57
Average	6	3	48	57

Note. The frequency distributions of pilot and control ships with lower total, lower average, and no difference in days of downtime and maintenance man-hours are significantly different from chance distribution, Chi-Square Test, equal ratio hypothesis (data of Tables 3 and 4 combined), .05 level of confidence.

In terms of average non-deferred downtime and average non-deferred manhours required per maintenance action many of the foregoing differences between pilot and control ships disappear. In 2 comparisons, control ships reported lower average days down; in 2 comparisons, pilot ships reported lower average days down; and in 26 comparisons, the differences were not significant. In 1 comparison, a control ship reported lower average manhours of maintenance; in 1 comparison, a pilot ship reported lower average manhours of maintenance; and in 28 comparisons, the differences were not significant.

Table 4 indicates that, in 9 comparisons, control ships reported fewer deferred days of downtime; in 7 comparisons, pilot ships reported fewer days down; in 11 comparisons, the differences were not significant; and in 3 comparisons, there were insufficient data. In 6 comparisons, control ships reported fewer deferred man-hours of maintenance; in 6 comparisons, pilot ships reported fewer man-hours of maintenance; in 15 comparisons, the differences were not significant; and in 3 comparisons, there were insufficient data.

In terms of average deferred downtime and average deferred man-hours required per maintenance action, the data appear to shift slightly in favor of pilot ships. In 2 comparisons, control ships reported lower average days down; in 4 comparisons, pilot ships reported lower average days down; in 21 comparisons, the differences were not significant; and in 3 comparisons; there

were insufficient data. In 2 comparisons, control ships reported lower average man-hours of maintenance; in 5 comparisons, pilot ships reported lower average man-hours of maintenance; in 20 comparisons, the differences were not significant; and in 3 comparisons, there were insufficient data.

In summarizing the comparison of pilot and control ship performance based on days of downtime and man-hours expended in making repairs, Table 5 shows that, in the majority of cases, there is no significant difference in pilot and control ship performance. There is a definite trend, though, for control ships to report fewer total days of downtime and total man-hours of maintenance. There is also a slight trend for pilot ships to report lower average days of downtime and average man-hours required per maintenance action. The latter would appear to be the more valid indicator of maintenance proficiency, as it corrects for any difference that may exist in ships actually reporting casualty data.

DISCUSSION

The maintenance effectiveness of pilot and control ships was compared on the basis of data collected and supplied by the MSOD 3M reporting system. The measures used were: (1) number of maintenance actions, (2) proportion of personnel-caused equipment malfunctions, (3) total days of downtime, (4) average days of downtime per maintenance action, (5) total man-hours of maintenance, and (6) average man-hours required per maintenance action. Separate analyses were performed for maintenance actions that were deferred for spare parts or outside assistance.

Of the 300 comparisons made between pilot and control ships, 177 indicated that there was no significant difference in maintenance effectiveness, 79 appeared to favor control ships, 32 appeared to favor pilot ships, and in 12 cases the data were insufficient for statistical analysis.

The fact that control ships reported fewer maintenance actions (which would influence total days down and total man-hours of maintenance) may not mean that electronic readiness is lower on pilot ships. It may mean that pilot ships are more diligent in reporting maintenance actions or that—possibly through better test procedures and higher equipment performance standards—they locate a greater percentage of their casualties. This possibility cannot be determined from the present data. However, it does appear to be generally accepted that Navy ships differ considerably in the degree to which they conform to 3M data reporting requirements, and it may be worthwhile to examine separately that data that is free of this potential source of experimental error.

Of the 150 comparisons made between pilot and control ships that were based upon the proportion of personnel-caused equipment malfunctions to the number of maintenance actions, to the average days down, and to the average man-hours expended per maintenance action, 119 indicated that there was no significant difference in maintenance effectiveness, 13 favored control ships, 12 favored pilot ships, and in 6 cases the data were insufficient for statistical analysis. Thus, by eliminating frequency data, the apparent differences between pilot and control ships disappear.

CONCLUSION

Overall, the data fail to demonstrate that improved maintenance effectiveness has resulted from implementation of the combat system organizational structure on board pilot ships.

RECOMMENDATION

The present study concerns itself solely with maintenance effectiveness as defined herein. The pilot organizational structure also has had other impacts (e.g., on management relationships, career development, and crew morale) that are only partially related to maintenance effectiveness and that merit separate consideration. All of these factors, several of which will be summarized in a forthcoming final report (Note 5), should be weighed before a decision is made concerning the effectiveness of the combat system organizational concept.

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APPENDIX

SUMMARY OF DATA: PILOT VERSUS CONTROL SHIPS

SUMMARY OF DATA
PILOT SHIP # 1 VS. CONTROL SHIP # 1

	H I P AVG MAINT HRS	6.60	60					'n						•								ev e					
	O L S TOTAL MAINT HRS	080	27	000	000	000		17	00	150	00		•	• •	0	33	300	016	0		2	*	36	0	0	00	
	ONT RODAYS	101.	51.	:::	•••	•••		65.	•••	31.	•		•••	•		.2.	25.	17.		3.0	49.	58.	.66	0.	0.	•	
ERRED	TOTAL DAYS DOWN	206	213		000	000	009	326	00	93 0	00	000	00	00		374	209	17	0	0 %	64	116	197	0	0	0 0	00
0 5 6	A A VG HAINT HRS	0.0				•••				10.				•		~ .			2.		0		51.	117.	0		••
	S H L TOTAL MAINT HRS	0 68 9	00		000	000		200	c N	100	00	100	00	66	. +	13	000	N	~	٥ ,	0	00	2.5	350	0	0	00
	I L O T AVG DAYS DOWN		•••	•••	•••	• • •			73.	36.	.03			•	131.	95.		168.	172.	118.	0.	•	146.	105.	0	.0	•••
	TOTAL DAYS DOWN	137								36			0					168		246		0 0			0		
	I P AVG MAINT HRS	91.		•••	•••	•••			٥,٠			· m		÷-		, c			0.	•	.0	6.	. 1	12.	3.		•••
	TOTAL MAINT HRS	1089	0	000	000	000	0	138	0 N	15.	0	11	0 1	11 ,	00	17	000	00	0	0 0	0	6.	1 26	916	9	143	0
	AVG DAYS DOWN	13.		•••	•••		32.	15.	18.	• •	•		• •	15.		~ ~			0.			46		2	11.	· t	
R 8 C	TOTAL DAYS DOWN	13	00	000	000	000	32	564	18	0 6		ю		.		12		- 0	0	c c	0	0 .		418	22	125	o c
DEFER	AVG MAINT HRS	110.	•••	• • •			:		. 6	0.0		29.		•		•	•		1.		0	0.	•	16.	;	. 5	0.0
NOT	S H I P TOTAL MAINT HRS	195	00	000	000	200		22	n ec	63	30	259	0 ~	50	N	6 6		0 0	1	00	0	0 0	0 0	1234	14	6	295.
	I L O T AVG DAYS DOWN	000		•••	•••			14.	3.	• •	0 0	12.	. 6	•	21.	•		0.0	13.	•	. 0	0		23.	5.	3.	
	TOTAL DAYS DOWN	36	00	000	000	0 0 1		153	38	0 00	- 0	110	17		21	00	0	55	13	د د	0	0	0 0	17.34	4	27	170
	EIC	69	E S	315	101	EZZ	2 2 2	24	P6	80	1 0 0	2	60	RI	100	3	3 14 1	3 3	¥	3 7	2	L'3	3 4	58	25	5F	25

SUMMARY OF DATA
PILOT SHTP # 1 VS. CONTROL SHIP # 2

	H AVG	16.	17.	;	.0	19.	10.	•	•			•	.01			21.		7.	93.	.99	19.	20.	•	•	10.	12.	15	7.	*	21.	~	•			2	3.	.9	•	;		ċ.		: .		10.		~
	R O L S TOTAL MAINT HRS	253	17	17	•	70	53	11	15	0	20		211			211	•	*1	279	721	192	225	•	97.	201	142	73	13	1	95	N :	• •		62	16	•	20	•	1	10	**		2 4		104	6	N
	AVG DAYS DOWN	57.	35.	39.		95.	202	222.	212.		240.	106.		23		45.		38.	52.	96	59	93.				63.	52.	216.	119.	106.	22.	. 00	157	147	148.	114.	136.	•	154.	167.	141.				.99	**	70.
ERRE	TOTAL DAYS DOWN	917	35	157	•	379	209	665	635	0	1438	200	1641			452	•	75	157	246	294	1020	***		1042	240	258	431	237	455	55	99	783	2201	1037	343	1222	0	462	999	454	2011	910	100	199	133	10
9 3 0	A AVG	7.	2.	2.	11.	3.	•			•		•		30		36.	201.		۶.	°.	8		•	,	•			16.		12.	•	• •	• •		8.	2.	3.	2.	٠,	2.		•	• •	. 80	23.		
	TOTAL MAINT HRS	78	10	~	11	9	0	1 0	17	0	± °	0 (v v	30	. 0	36	405	0	~	113	9	S	0 :		;	*	*	16	0	83	0 .	01	16	69	17	12	9#	54	15	m	N	70	0 0	200	393		~
	P T L O T	57.	71.	207.	58.	31.	.0	55.	116.	•	101.	•	£10.	229.		17.	72.		55.	103.	107.	46.	•		•	35.	14.	57.	•	£8.		36.	145	113.	160.	179.	160.	146.	149.	560.	.16	137.			69	0	26.
	TOTAL DAYS DOWN	989	356	207	58	62	•	25	578	0	303	0.0	017	229	6	17	143	0	S 31	2173	322	91	0 0	253	200	2	14	57	0	337	0	20	1163	3852	1436	1011	2728	1748	1040	519	1600	2000	2000	765	1173		58
	AVE MAINT HRS	.00	13.	5.	• 0	• 0	1.	•		•			•	•		6	3.	5.	5.	27.	6	16.	• •				17.	2.	3.	2.			•	. 9	.0	27.		1.	•	2		•	•	•	16.		3.
	O L S H TOTAL MAINT HRS		52	S	•	0	-	0	27	0	- 0					99	2	64	9	962	170	177	9 0	201	9	¥60	66	17	6	N	25	12		17	0	54	25	1	0	~	0 0				1036	63	6
	AVG DAYS DOWN	3.	5	.0	•	•	•	•		•	•	.02	•			•	12.	*	0.		*	•	· •		•		2	1:	1.		ν.	•		1:	.0	•	.9		•	2	•	•	•	•			0
RRED	TOTAL DAYS DOWN	96	*	0	0	0	•	0	29	0	- 6	02				m	54	37	0	179	2.1	ı,	51	000	21.	209	11	1	~	-:	62	* 0		*	c	11	31	c	0	~	0 0				311		c
DEFE	A AVG	6	.0	2.	.0	3.	2	•			•	•	•	•		12.	1.	3.	2.	2.		3.		• •		. 11.		10.	1.	•	· ·	•••		1	.0	0.	10.	• 0	1.	•	•	•	•		; ;		3.
N 0 T	S H I TOTAL MAINT HRS	214	0	12	•	s	*	0	13	* •	0 0					09					13			276	200	0.4	177	370	-	65	60		. ~	-	•	0	10	0		0		4 0		3.5	1548	91	51
	AVG DAYS	2.	• 0	•	•	9.	•	•	:	:	•	•	:			33.			.9	6		:	•	•	•	13.	1.	2.	.0			•	21.		.0	.0	33.	•	13.		•	•	•		15.	3	
	TOTAL DAYS DOWN	36	0	0	•	17	•	0	-		0	5 (0	165		0	41	183	34	13	0 4	0 0	24	20	90	205	0	37	50		210	•	0	0	33	C	13	0				-	2170	25	31
	EIC	61	3	3	5	6	2	3	9	E 33	1	2	2 1		N	88	6N	P1	P3	4	9 d	P7	60	9 6	3	9 6	×	E	10	60	2	0 1	2 3	N.C.	9	L.R.	98	I.	×	9	3	2 :			58	20	5F

SUMMARY OF DATA
PILOT SHIP # 1 VS. CONTROL SHIP # 3

	MAINT HRS	14.		64	.13	6		· ·	. a	, w	.0	18.	6	15.	46.	28.	12.	23.	11.	95.	26.	25.			12.	#6.	• •	1	13.	۲.			5.	0	•					183.	16.	v.		• 0
	O L S TOTAL MAINT HRS	12	0	86	102	96	0	1:	9	59	0	0 0	36	58	642	141	750	185	96	95	1388	100	*	N	183	228	0 4	28	56	37	87	100	S	00		0 4	7 5		0	917	156	ın e	0 0	>
0	AVG DAYS DOWN	201.	.0	177.	159.	219.	0	24.	10.	50.		112.	61.	54.	102.	229.	104	54	41.	63.	76.	75.	62.	243	75.	24.		223.	110.	104.	. 29	000	221.	.0	158.		. * *			71.	46.	47.	•	• 0
ERRE	TOTAL DAYS	201	0	353	151	2413	0	16	322	424	0	112	244	217	1421	1143	1513	430	326	63	4003	414	124	243	1123	121	90.	892	220	519	185	101	221	0	158	0:	1/1	9+1	000	354	369	47	0 0	0
DEF	A AVG MAINT HRS		2	2.	o ro	'n	0	•		. 2	ю,	32.	201.		%		N M		۲.	3.	· 0			16.	12.	0			8	~	· ·	• •	· ~	2	~	n' c	• •			28.	23.	0	٠,	.0
	TOTAL MAINT HRS	27	10	~ `	C M	11	0	0 :	† 0	N	9	32	405	0	~	113	ص م	0	*	m	‡ '	2		16	83	0 *	n u	16	69	17	27	5 4	15	~ 1	m	~ 6	2	0 5	50	224	393	0	~ 0	0
	AVG DAYS	. 29.	71.	207.	55.	116.	0		101.	210.	50.	229.	72.	0	55.	105.	101	0	30.	87.	63.	45.		57.	48.			145.	113.	160.	179.	146.	149.	215.	260.	.16		210	229.	.96	.69	0	.96	•
	TOTAL PAYS DOWN	114	356	207	2 5	578	C		303	210	66	229	143	0	55	2173	91	0	59	87	563	0 2	74	57	337	0 0	322	1163	3852	1436	1071	1768	1040	215	519	600	2000	1887	2981	765	1173	0	56	0
	I P AVE MAINT HRS	18.			<u>:</u> .	. 2	0.	• 0			• 0	•		2	9.	· n	· -	0.0		0.		• • •	13.	6	0.	• •	•	• •	0	0.	.00		un	0.	0.	•	•			26.	8.		œ.	
	OLSH TOTAL MAINT HRS	70	. 0	57	+ K	34.	0	0 0	- a	ı a	0	00	11	م	18	148	16	0	N	0	52	0 =	*86	119	0	52	- 0	00	0	0	0	00	0	0	0	0 0	0 0	0 0		26	661	79	53	•
	AVE DAYS	15.	0.	• •	• :	. 0	0	•			0	•	• •		2.	12.	. 02	0	0	.0	. 0	• •		'n	.0		•	• •	0		•		17.	0	0.	•	•			. ~	*	-:	. 0	•
RRED	TOTAL DAYS	58	•	19	33	, ,	0	0	00		0	c •	- 0	c	1	336	60	0	0	c	16	00	17	70	c	56	0	c	0	6		-	17	6		c c	0 0		c		560	75	14	0
OEFER	AVG MAINT HRS	111.		٠,			10.		• •		.0	•	12.	3.	2.	٠,	n' r	1.	5	2.	. 5			10.	. +	200	•		1:	0	.0.	.0.	1.	0.	• 0	.0.	•	•		. 10	11.	5.	. 03	.0
TON	S H I TOTAL MAINT	157		12	n =	13	10	+ (00	0	0	0	00 ~	15	12	9 .	25		ю	N	276	6 2	177	370	65	65	0	> ~	1	c		0	1	0	0	0.	- 0	0 0	0 0	35	1548	5	51	0
	I L O T AVG DAYS DOWN		0	• 0		1:	1.			0	.0	. 0.	00.	0.0	• 9	6.	• .	0	3.	12.		13.	1.	5.	5.	~	•	21.	0	•	.0.	000	13.	0.	• 0	•	•	•		. 0	15.	5.		• 0
	TOTAL DAYS DOWN	0 4	0	o !	17	1	1	.,	0 6	0	0		00	c	41	183	14	0	9	12	95	1 05	30	205	37	54	0 0	21	0		0 .	00	13	C	-	c •	0 0		0 0	1	2170	55	31	0
	ETC	69	3	3	5 1	19	MI	N3	T E	W6	M7	N S	202	P1	P3	bd	96	60	GB	20	00	9 L	X	E.N.	60	RI	0 4	3	N.	9	3	2 3	X	7 1	03	77	0 4		. 0	54	58	25	35	25

SUMMARY OF DATA

DEFERRED

LON

DEFERRED

4 I H	AVG	MAINT	18.	3.	;	3.	11.	2.	3.	3.	7.	6		11.	3.	2	6	2	2	10.	3.	5.	2	2.	. +	1.	0		3.	19.	13.	2	0		2.	2		2	2.	62.	16.	0.		
	TOTAL	HAINT	*6	25	•	10	88	*	25		52	6	28	17	9	21	100	•	16	99	54	5#	8	~	45	-	0	30	6	20	13	0	0 :	*1	9	2	1	16	~	247	127	0	2	0
	AVG	DOWN	166.	117.	.08	77.	160.	128.	59.	545	257.	128.	78.	429	.61	93.	43.	.0.	100.	108.	97.	106.	35.	59.	71.	399.		288.	12.	47.	0	131.		13%	20.	.68	72.	86.	.96	946	93.	0	82.	0
u	TOTAL	DOWN	662	583	159	232	1279	256	589	242	1800	128	702	424	157	1118	85	280	701	753	772	532	35	29	785	399	0	2018	36	141	0	393	0	226	150	68	289	688	99	982	111	0	82	0
a	AVG	HAINT	•	.9	2.	.0		0.				.0	•	•	•		•	.0	•	• •		2.	2.	.0	10.	2.		.0		0.	0	2.		.0	5.	٠.	2.	2.	0	51.	88.	.0	0.	• 0
SH	TOTAL	MAINT	0	31	9	0	0	0	15	0	0	0	0	0	0	0	0	0	0	10	0	8	~	0	10	2	0	0	0	0	0	t	15	0	6	+	2	30	0	51	353	0	0	0
PILOT	AVG	DOWN	•	35.	35.	.0	.0	•	131.	.0	0.	•	•	•		•	•	.0	0.	71.	.0	73.	25.	.0	36.	61.	.0	.0		.0	0	131.	86.	0	.65	203.	172.	129.	0	146.	128.	0	0	0.
	TOTAL	DAYS	0	174	105	0	0	0	523	0	0	0	0	0	0	0	0	0	0	848	0	73	25	0	36	19	0	0	C	0	0	262	687		118	904	172	1680	0	146	512	0	0	0
I P	AVG	MAINT		.9	.6	37.	.6	÷	2.	.0		.9		•	• 0	. 5	10.	1.	0.	5.	2.	•	0.	.0	t.	2.		5.	0.	7.		•	1.		0.	0.	.0	0.	0.	0.	10.	1.	.0	.9
HS 70	TOTAL	HRS	N	16	28	187	36	ŧ	7	0	99	9	22	0	0	9	30	1	0	55	n	0	0	0	09	m	13	158	0	85	16	0	- :	+	0	0	0	0	0	0	F 83	13	0	17
~	AVG	NMOU	~	5.	2.	M)	5.	•	•	•0	41.	1.	•	•	0.	. 8	•	••	•	34	28.	.0	0		5.	.0	2.	t	• 0	8.		.0	.0.		0	0	.0	0	0	0.	• 9	12.	.0	26.
L	TOTAL	DOWN	•	74	r	13	21	c	1	c	732	•	11	0	6	54	0	c	0	35	55	c	0	c	84	0	14	12A	c	76	c .	-	c :	*	0	C	0	c	0	c	362	104	0	18
a	AVG	HRS	10.	11.	•	.0	0.	•	••	•	••	• 0	•	• 0	•	14.	0	1.	1.	2.	1.	в.	.0	2.	•9			26.	· t	. +	.0	٠.	•	.0	10.	.0	1.	0	0.	0.	15.	3.		٥.
	TCTAL	HAINT	10	195	0	0	0	0	0	0	0	0	0	0	0	45	0	-	1	22	2	æ	0	2	16	\$	43	261	21	50	0	~	0 (0	10	0	1	0	0	0	1279	53	6	0
1 6 0 1	AVG	DAYS	•	2.	.0	0.	.0	•	• 0	•	••	••	•	•	• 0	48.	•	• 0	30.	14.	19.	3.	• 0	12.	3.	.64	.0	11.		.0	.0	21.	•	.0	33.	.0	13.	0.	0.	0.0	23.	.9	5.	.0
_	TOTAL	DAYS	0	36	0	U	0	0	O	0	÷	c	0	0		144	٥	0	30	153	38	ю	9	12	45	64	-	110	27	1	0	21	0	5	33	0	1.3	0	c	0	1913	51	27	0
	EIC	CODE	68	61	3	25	Le	5	۲6	M3	¥	. N.S	W6	M 7	NC	88	611	P1	P3	bđ	9 d	P7	90	30	00	OF	O.K	¥0	66	R1	R.5	MB	3	43	5M	I	X X	E #3	53	5A	58	25	5F	25

SUMMARY OF DATA
PILOT SHIP # 1 VS. CONTROL SHIP # 5

	4 1 1	AVG	MAINT	HRS	.0	54.	0	0	100.	0	0		3.	.9	.0	0	0	0		0	2.							0	.0	2	0	2	.0	*	0	.09
	8 70	TOTAL	MAINT	HRS	0	375	0	0	100	٥	0	0	10	18	0	0	0	0	0	0	~	0	0	0	0	0	0	0	0	2	0	#	0	J	0	120
	ONTR	AVG	DAYS	NMOO	.0	* + +	0	.0	48.	0	.0	0	33.	18.	0	0	.0	0	.0	0	77.	.0	.0	.0	.0	.0	0	.0	•	85.	.0	95.	•	.96	0	58.
ERRED	U	TOTAL	DAYS	NMOO	0	305	0	0	t 8	0	0	0	33	53	0	0	0	0	0	0	77	0	0	0	0	0	0	0	0	85	0	190	0	99	0	115
0 F			MAINT		9	.0	0	0		.0	0	0.	.0	•	0	.9	.0	2	.0	2.	0	10.	.0	2	.0	.0	.0	0	5.	2.	2.	2.	51.	88.	0	0
		TOTAL	MAINT	HRS	31	0	0	0	0	0	0	0	0	0	0	70	0	2	0	N	0	10	0	2	0	0	0	0	6	t	2	30	51	353	0	0
		AVG	DAYS	NMOO	35.	.0	.0	.0	.0	0	.0	.0	.0	0	.0	71.	.0	73.	0	25.	.0	36.	.0	61.	• 0	.0	.0	.0	59.	203.	172.	129.	146.	128.	0.	.0
	٩	TOTAL	DAYS	NMOU	174	0	0	0	0	0	0	0	0	0	0	848	0	73	0	25	0	36	0	61	C	0	0	0	118	904	172	1680	146	512	0	C
	d I	AVG	MAINT	HRS	.6	0.	0.	10.	50.	30.	3.	0.	16.	.6	2	13.	0.	3.	0.	0	0.	1.	5.	1.	0.	.0	0	0.	.0	.0	.0	0.	• 0	t	.0	.0
	OLS H	TOTAL	MAINT	HRS	34	0	0	10	50	30	ю	0	91	55	2	126	0	9	0	0	0	1	S	8	0	0	0	0	0	0	0	0	0	11	0	0
	N T	AVG	DAYS	NMOO	1.	0	0.	8.	8.	8.	0	0	12.	t	.99	7.	.0	.99	0	0.	.0	46.	21.	0	0	.0	0	.0	0	0	0	0	0.	0	0	0
RRED	0 0	TOTAL	DAYS	NMOO	r	0	0	8	α	œ	0 .	c	5.8	56	99	99	C	132	0	C	c	9#	21	0	0	0	0	0	C	0	0	C	0	0	0	0
DEFE	d	AVG	MAINT	HRS	111.	0.	0.	0.	0.	.0	.0	.0	0.	14.	1,	2.	1.	. 8	.0	.0	2.	7.	.9	. +	. 4	26.	0	0	10.	0	1.	0	0.	16.	2.	23.
101		TOTAL	MAINT	HRS	195	0	0	0	0	0	0	0	0	45	1	22	2	89	0	0	~	82	30	t	43	261	0	0	10	0	1	0	0	1257	6	362
	ILOI	AVG	DAYS	NMOO	5	0	0.	0	.0	0.	.0	0.	0	48.	0	14.	19.	3.	0.	.0	12.	St	.0	.64	.0	11.	0.	.0	33.	0.	13.	.0	.0	24.	2.	11.
	G	TOTAL	DAYS	NMOC	36	c	0	0	C	0	0	0	0	144	ن	153	38	ĸ,	U	0	12	45	1	64	1	110	0	0	33	0	13	0	0	1906	27	170
		EIC	CUDE		61	LB	70	E	M3	M	MS	M6	NC	80	p1	bđ	96	P7	64	9B	20	90	9E	OF	GK	NO.	03	14.3	M.G	I	XX	M3	5A	58	5F	511

SUPPARY OF PATA

YOT SEFERRED

UEFEORED

- H	MATA	HRS	13.	54		17.	18.	6.	ď	23.		10.	•			ני י			•			15.				12.	•	• •		33.		18.	;		0	7.	8	•			10.		12.	0
S T O	MAINT	HRS	101	176		17	18	18	10	69	0	31		140	420	102	. 40	101	23	25		66	-	35		10	90	0 0		33	16	18	125	28	0	116	30	0	0	45	418	E #	62	0
- N	DAYS	2300	156.	33.	. 18	t 9	13.	151.	231.	129.	.0	101.			193	617			233.	.00		218.	130.	179.	. 29	716.	. 00		. 8	198	125.	309.	. 48	. 46		146.	180.		156.	26.	120.	. 44.	126.	
U	DAYS	NMOG	1245	66	**	6 7	13	302	461	386	0	303	0	1475	95.	1163	2 2	000	443	343	161	A73	130	716	24	1483	C 80.	-	9	193	2756	309	2590	374	0	2477	721	0	312	133	5261	98	251	0
٩	MAINT	HRC	10.	ď.	• 0	36.	23.	16.	•	8	•	1 t			•	•							•		••		•		• • • • • • • • • • • • • • • • • • • •		.6		120.	0.	3.	r.	. 9	٦.	. 8	19.	63.			17.
1 1 2 1	MAINT	HAS	10	ľ	C	35	23	63	0	54	0	*	5.	* 1	0 (†	= :	101	004	220	183	C	0	-	90	-	0 0			160	28	120	0	9	37	19	S	23	38	1316	~ 1	2	11
0 1 L 0	NAYS	NMOU	189.	78.	0.	.666	.99	.96	•	110.	•	111.	251.	.00			157		140	120.	. 53	103.		•	• 00		•	•		0.	140.	71.	521.	0.	31.	162.	. 46	49.	.65	111.	129.	135.		174.
	DAYS	DOM	189	78	c	556	99	383	0	350	c	111	250	101	000	102	200	= 400	501	120	413	1024	c :	0		1	= 0	: c	2	C	2516	464	521	C	61	1295	161	64	177	222	2717	270	-	176
e 1	WATELT	HRS	3.	٠.		13.	0.	21.	٥.	-:	1.	6	• 0	. 7	•	.1.	17.	.11.	. 14.	·.	. 2	.,	0.	.6	٠.		٠,٠	• •	• •	. «	3.	7.		0.	• •	t.	2.	t.	٠.	3.	я.	. 4.	14.	0.
L S I	TOTAL	HRS	9 †	c	0	96	0	145	0	-	-	43	0	+	0 : ,	***	9 :	t :	7 0	69	73	a a	0	141		1	# U		4 14	: 20	524	34	42	0	11	36	10	t	34	12	2015	252	16	D
8 F	DAYS	NOW	19.	0.	0	30.	0	37.	.0	201.	17.	141.	•			• !		200	٠٠٤	.,		32.		50.				73.	35.	. 00	24.	29.	t.	0.	31.	76.	88.	117.	41.	•		35.	41.	•
Ü	10101	1.MOC	345	c	c	09	c	261	c	501	17	706		c1	c (;	7 .	500	141	010	195	484	334	c	1001	194	4414	***	70	4.5	5.0	1750	139	16	c	46	683	441	1117	516		1850	7.56	42	_
0	AVG	HRS	7.	.0	ır.	7.	13.	1.	3.	10.	:-	٠,	•		10.		•	13.	20.	35.	a j	25.	.2	14.		10.	• •	• •	•		ď	.4	20.		.6	٥.	٥.	.0			47.		3.	• 9
SHI	TOTAL	HAS	32	5	14	14	13	1	13	+1	1	\$	5	16	10	100	5	105	217	77.8	215	271	۷.	167	7	47.5	10		111		655	24	50	~	1.1	c	0	c	c	57	13546	60	10	-
1601	DAYS	nowl.	.9	0.	. i) Z	12.	24.	54°	19.	• • •	.0	σ.	18.	•	50.		• •	•	•		x i	.,	;	. 6			•	• 6.1	• •		٠.	111.	.05	12.	54.	0.	• 0	9.	• •		• •	.:.	1.	•
0	TOTAL	JON'S.	61	0	5.0	54	74	77	to	14	0	o	36	7.	02	74	= ;	5	7	150	210	16	3	5	5	745	55	4			454	108	30	12	4+	c	0	ε	5.5	15	1277	174		17
	FOOF	3,000	19	3	4	1	=	۲6	43	11	r.	91	27	NC	CF.	1	64	=	p3	1	44	P7	5	E	27	00	+	4	100	7 7	2	60	13	18.7	111	2	*6	2.72	43	5A	2,10	25	36	51.

SUMMARY OF DATA
PILOT SHTP # 2 VS. CONTROL SHTP # 7

NOT DEFERRER

d I H	AVG	HATAT		~	3.	~	21.	204.		3.	•						.6	10.	17.	57.		•		14.				24.	,	29.	ė ı			;	•	•	•	3.			r. c	,	•	•
SOLS	TOTAL	HAINT	19	12	•	2	21	612		6		•	0 0	22	, 0	2	37	09	149	170	0	21	2	271	90		9	54	36	98	0 0	4 4		14	11	0	0	6	50	343		10		,
NO	AVG	DOWN	36.	130.	138.	100.	120.	16.	102.	81.		220.	122.	121		156.	62.	133,	103.	.61		110.	245	*		• 0 0	.:	46.	225.	115.		1001	118.	37.	58.	ċ		127.	17.		197.		• •	•
U	TOTAL	DOWN	285	779	415	100	120	47	607	244	0	011	1099	569	0	156	745	196	424	236	0	441	240	885	0 :	101	2.	91	1352	345	0 4	נינים פ	318	147	116	0	0	381	853	2088	195	anc t	0 0	,
۵	AVG	HRS	10.	5.	0	.0	23.	16.	0			•		. "	22.	0	19.	67.	31.	79.	0.	0.				•	.:	0	6		•	120		5.	• 9	0.	r.	8	10	63.	~ ~	•		
SHI	TOTAL	HAINT	10	S	0	0	23	63	0	54	0	± ;	21	+ 0	* *	0	134	004	220	189	0	0	0;	36	0 0	0 0			160	0	c ?	120	2	37	13	0	2	53	38	1114	m 0			
PILOT	AVG	NMOU	189.	78.	0.	.0	.99	.96	0	110.	0	111.	231.		139.	0	146.	120.	.65	103.	• 0	.0		82.	•	•	88.	0	140.	0.			31.	162.	54.	.0	49.	.69.	111.	129.	135.	•	. 176	•
	TOTAL	NAMOU	189	78	0	0	99	383	c	330	c	111	692	199	278	c	1025	720	414	1028	c	C	0	899	0 0		8	0	2516	c .	0 0 ::	470	19	1295	191	0	64	177	222	2717	016	11	. 76	
1 b	AVG	HRC	2	2.	0.	۶.	 	. +	٠.	٠,		15.	1.	•	13.		5.	13.	J.	в.	a	٠,	÷	14.	10.			40.	ď	٠.		12.		K		43.	1.	• •	10.	œ.	٠.		::	•••
JL SH	TOTAL	HRS	51	ŧ	0	ŧ	8	##	15	41	14	4.5	-	0 0	200	96	163	651	267	177	15	151	18	1002	125	1+-	214	0	119	ю	K. 6	C 4 -	9 6	76	23	129	+	11	10	2436	940	0 0	10	13
1178	443	POUNT	15.	183.	0.	7.	۶.	3.		٥.	21.	22.	٠.	• •	0.	. ~		•	1.	6	S	11.	28.	9	10.		• c	27.	6	30.	٠.			17.	15.	21.	8.	7.	· .	;	K. F.		• • •	:
ن	TOTAL	DOMP	484	366	0	14	¥	57	13	43	105	99	t t	, K	37	37	44	302	30	192	0	537	141	779	133		= 0	7.5	135	59	500	202	C	מחש	121	49	54	21	0	1260	6 4 6	1 0		
r.	AVG	NINE	7.	0.0	1:	5.	13.	1.	3.	10.		٠,	•	• •		13.	20.	35.	8.	25.		15.	11.	10.		•••			5.	0.	. 34	• • •			0.	0.	0.	٠,	· t	.64				•
SHI	TOTAL	HRS	22	0	1	14	13	1	13	41	1	3	1.9	970	0	105	217	778	215	271	N	167	11	969	51	o •	110		635	0	.	÷ c		0	9	0	0	٥	15	13546	6.0	10	ε:	11
ILUF	AVG	DOWN	•	0.		20.	24.	24.	19.	19.	• c	.6	18.	• •		6	5.	7.	ď	7.	* †	2.	5	· ·	÷ ,	13.			· v.	0.	÷ .	11.	>4.	9	0.0	0.	0.	• •		· n	Ġ.			
-	TUTAL	DOUR	19	c		56	54	54	16	74	0	14	36	+ 5		14	53	159	210	76	5	5.0	74	240	33	42	200	-	459	0	#	108	34:	2	0	L	0	23	15	12/1	175	۸ :	51	, ,
	£10	CODE	19	25	۲۲	LA	Н	97	M3	MA	51.	M6	7.7	2 0	0 2	P1	p3	bd	96	P7	60	C. 3	25	an	SE SE	7	7	5 5	E	10	70	60	7 1	,	93		X	K) 3	3.6	7	50	36	ž.	36

SUMMARY OF DATA
PILOT SHIP # 2 VC. CONTROL SHIP # 8

DEFERBED

N 0 1

DEFERRED

-	AVG	MAIN	HRS	3.	41.			23.	137.	10.	7.	43.		29.	16.			18.	10.	14.	10.		103.	0	33.	14.	0.		0	61.		.4	2.	2.	3.		3.	10.	2	20.		·.	·
	TOTAL	MAINT	HRS	==	#1	0	15	23	273	10	56	173	19	59	16	2	*	70	51	42	11	0	1033	0	264	14	0	0	0	610	0	18	11	N	59	•	3	19	14	586	51	•	0
-	AVG	DAYS	NAOO	111.	25.		166.	26.	179.	36.	208.	178.	55.	.,	104.	391.	7.	105.	.99	.66	307.	0.	294.	0	61.	32.	0.	0	.0	124.	0	161.	52.	453.	239.	237.	372.	42.	235.	.08	91.	. 46	0
	1014	DAYS	DOWN	4.5	25	0	331	56	358	36	A32	710	274	*	623	391	1	418	332	966	5454	0	2936	0	1045	32	0	0	0	1243	0	483	261	453	2620	846	372	83	1647	2399	730	16	C
٥	AVG	MAINT	HRS	10.	5.	0	36.	23.	16.	8.	0	t	7.	7.	8	22.	0	19.	67.	31.	79.	0	0	0	3.	٠,	0	0.	11.	6	0.	. +	120.	3.	5.	٠,	0	0	æ	63.	2.	0.	17.
2	TOTAL	MAINT	HRS	10	S	0	36	23	63	54	0	ŧ	21	14	6	##	0	134	004	220	789	0	0	0	36	0	0	0	11	160	0	28	120	9	37	19	0	0	23	1316	3	0	17
-	900	DAYS	NACC	189.	78.	0	229.	.99	.96	110.	••	111.	231.	68.	94.	139.	0.	146.	120.	.65	103.	0	0	0	82.	0	0	0.	88.	140.	0	71.	521.	31.	162.	4.	0	0	.65	129.	135.		176.
	TOTAL	DAYS	DOWN	189	78	0	229	99	383	330	0	111	692	135	188	278	0	1025	720	413	1028	0	C	0	666	0	0	C	88	2516	0	100	521	61	1295	141	C	c	177	2717	270	U	176
9	4 4	MAINIT	HRS	1.	36.	0.	11.	0	15.	0.	0.	.0	0	6	.9	0.	ı.	6	3.	ж.	16.	-:	ŧ.	0.	15.	. +	5.	34	11.	16.	к,	.9	1.	0	0	1.	0	.9	0		5.	2.	
0	TOTAL	MAINT	HRS	11	36	0	22	0	45	0	0	c	0	14	44	0	10	18	20	19	31	1	27	0	761	18	5	6	33	173	3	25	1	0	0	-	0	11	c	991	101	3	0
-	4 4 4	DAYS	UCMI	1.	0	0	1.	0	16.	0	0	٠,	0.	2	3.	0	1.	1,		2	~	1.	1.	0.	3.	3.	0	٠.	٥.	t	0	2.	0	• 0	0	0		15.	0	2	37.	98.	۰,
	TOTAL	DAYS	DOMN	£	0	c.	0	c	t b	c	c	c	c	15	04	C	-	-	1	•		-	7	c	162	14	c	C	1	6 #	c	4	c	c	C	c	C	29	C	252	742	195	c
0	AVG	MAINT	HKS	7.	0.	5.	7.	13.	1:	10.	1.	5.	6	. +	15.	0.	13.	20.	35.	в.	25.	2	15.	11.	10.	5.	3.	1:	.9	5.	.5.	٠,	20.	.6	0.	0	0	٠,	~	.64	۶.	2.	.9
-	TOTAL	MAINT	HRS	22	c	14	14	13	1	41	1	3	18	16	554	0	105	217	778	215	271	N	167	11	169	15	2	1	217	635	6	49	20	17	0	0	0	~	9	13546	69	æ	11
	9/6	DAYS	NMOO	•9	.0	20.	12.	24.	24.	19.	0.	6	18.		•9	0.	.6	5.	7.	8.	7.	*	.9	.6	α	+	13.	.9	8	5.		11.	30.	24.	0	0	0	45.	.9	.2.	5.	a	.6
•	TOTAL	DAYS	NOON	19	0	50	54	74	54	74	U	18	36	14	16	0	14	51	159	210	76	t	69	5	545	33	56	S	72	469	t	108	30	48	0	0	c	45	23	1277	178	51	17
	FIC	CODE		61	3	LB	LD	ı	79	M	M.S	346	M7	NC	NA	614	P1	P3	hd.	9 d	P7	64	SE	36	90	10	9F	H	Y.	ME	10	69	81	4	D#	N.G	7	M	K.3	5B	20	SK	5L

SUMMARY OF DATA
PILOT SHIP # 2 VS. CONTROL SHIP # 9

WOT DEFERBE

UEFCARED

4	AVG	MAINI	Val	.0		14.		•	•	.9		35.	37.	0	•		0.			7.	111	.11		.0	,		·
S T O	TOTAL	INIVE	HRS																							0	
CONTR	AVG	MATS	NAOC	.0	.0	. 49	0.		.0	246.	.0	129.	248.	0	.0	190.	0	173.	.0	287.	.616	486.	34.	0.	.68	0	0
0	TOTAL	SAVO	NACC	0	0	49	0	c	0	946	0	129	248	0	c	380	0	519	0	287	279	544	34	6	173	0	6
2	AVE	MAINI	V 21	10.	36.	16.	90		. 1	7.	7.	0.	5.	0.	19.	31.	79.	0		3.	11.	6	120.	19.	63.	٥.	٠,
1 8 4 1				10	36	63	54	c	t	21	14	0	3	0	134	220	789	0	6	36	11	160	120	34	1316	•	~
1 1 0 1	900	5.141	2300	189.	.666	.96	110.	0.	111.	231.	6 H .	.0	. 10	0	146.	.65	103.	0.		. 2 .	AB.	140.	521.	111.	129.	135.	.16
	יייוער	1111	EMOC	189	229	343	130	c	111	695	135	c	1 4.8	0	1025	413	1028	c	c.	666	88	2516	521	252	2717	270	16
d 1				1.	0.	0				~	. +		15.	٠,	3.	٠,	0.	. 0	١.	2.	5.	3.	0.	•	· •	٠.	3.
H S 1 C	TULVE	121	HRS	1	0	0	c	c	0	9	16	0	101	N	3	0	~	0	2	x1	C	73	0	0	963	7	10
8 L 1 6				17.	.0	•			٠.	0	13.	0		σ	1:		11.	٦.		0		ж.	0.	0	12.	12.	١.
0 0	CLAL	VIVI	1.0MP	17	c	c	c	c	c	C	65.	4		C		c	11	c	L		c	Ch	c	•	1000	36	۲
4	AVS	IN I W	Hes	9.	7.	1.	2.	ŋ.		.6	. 4	10.	15.	13.	20.	. 5	27.	•	18.	1.0	.9		20.	~	+0.		3.
2 4 2				J	14	-	r.	c	3	16	16	10	224	105	217	207	546		165	6.7%	217	6.35	50	٧.	13024	96	91
1101	500	CATS	SOWN	.0	12.	. 44.	15.	.0.	•	14.		2r.	• 9	6	.0	•	.9		•	· c	٠,		\$0.	·		'n	1.
1 4	10101	SAVE	-	U	75	36	.57	S	16	34	10	93	71.	11	10	237	5.1	,	3.3	544	72	404	56	12	18.58	176	~
	FIC			19	-i-	Lé	+15	5	61%	7.4	272	039	n.P.	la	p.3	Pé	74	64	11:5	311	CA	3	11	SA	5	25	JC.

SUMMARY OF DATA
PILOT SHIP # 3 VS. CONTROL SHIP #10

	4 I P	AVG	MAINT	HAS	97.	1.	10.		~	59.		1.	3.	~		23.		3.	0	•	-	3.	0		13.	55.	•	2	~	3.		37.		18.			3.	3.		;		2	ď		0		16.
		TOTAL	MAINT	HRS	16	-	20	0	*	236	•			*	10	159	0	9	0	C.	1	M	0	0	13	103	~	90	90	8	0	149	0	90	2	19	11	25	m	1	2	14	73	0	0	0	16
•	ONTR	AVG	SAVO	NMOG	176.	325.	.94	0	29.	24.	10.	372.	163.	68.	.00	252.	18.	107.	0	286.	224.	87.	.0	.0	56.	.99	21.	58.	269.	20.	.0	95.		26.	69.	. 64	46.	110.	31.	37.	219.	t 2	115.	•			27.
ERRED	٥	TOTAL	DAYS	NAOC	176	325	230	0	58	46	10	372	325	135	69	1766	18	214	0	586	400	18	0	0	99	132	21	230	407	50	0	378	0	49	69	1652	182	686	41	14	219	271	1034	0	0	0	27
0 5	a	AVG	MAINT	НРО	158.	;	15.	3.	0.	0.	.0	0	7.	8		•	0.		3.	11.	٠.	6	.9			13.	17.	•	19.	138.	16.	3.		× .	12.		0		3.	•	0	.0	10.	6	13.	· •	.9
	I S H I	TOTAL	MAINT	HRS	633	æ	361	12	0	0	0	0	55	2	~	0	0	0	13	11	t	198	17	1	3	51	698	37	673	1102	35	3	r. (2	12	58	0	c	6	c	0	0	53	112	52	12	2
		AVG	DAYS	NACC	129.	40.	117.	125.	0	0.	0	.0	88.	443.	.09		.0		135	29.	.09	105.	.16	.06	529.	. ##	175.	.06	97.	59.	A5.	190.	13.	92.	62.	323.		0	65.	0	0	•	.066	82.	114.	55.	85.
	٩	TOTAL	DAYS	NMOU	515	44	2812	200	c	C	0		263	644	09	c	0	0	532	53	119	5504	291	179	529	175	7003	537	3380	470	169	190	13	60	65	1315	0	c	186	c	0	0	870	1001	228	109	82
	9 1	AVG	TAIAP	HRS	13.	0.	27.	٠,	0.	٥.	1.	0.	0.	.0	1.	1:	0.	1.	12.	0.	0.	11.	2.	0	0.	2.	0.	2.	2.	.0	3.	38.	3.	.0+	0.	.0	٠,	٥.	0.		0.	•			7.	7.	5.
	H S 7	TOTAL	TNINA	HRS	64	0	186	~	0	0	1	0	0	0	1	-	0	1	12	0	0	3.3	2	0	0	4.8	0	3	7	0	6	418	. 3	0+	0	0	0	0	0	0	0	0	21	32	13	35	37
	MIR	AVE	DAYS	NMOU		0	2	20.		0.	0.	.0	.0	0.	.0	۲.	0.	•	13.	0.	0.	15.	7.	0.0	0.0	0	0	· m	1.		.0	32.		125.	.0	.0	.0		.0	0		.0	.0	.6	*	5.	5.
RE	0 7	TOTAL	DAYS	DOME	27	c	17	20	0	c	c	c	c	c	c	م	0	c	13	0	c	tt	7	c	c	¥	C	y	~	c	C	357	C	127	c	0	c	c	c	c	0	c	c	167		33	40
FF		AVG	MAINT	HRS	18.	0.	20.	1.	3.	.0	.04	.6	11.	0.	• 0	0.	7.	5.	.0	5.	0.	. +	.8	18.	27.	ά.	5.	3.	e	37.	3.	5.	.0	.0	2.	• 9	.9	2.	٠.	2.	5.	• 9	28.	7.	5.	5.	1.
OLUN	SHIP	TOTAL.	MAINT	HRS	53	0	960	1	\$	c	90	56	21	0	0	0	7	16	C	25	0	117	9.6	220	750	283	305	7.0	437	110	3	54	0	0	2	122	17	60	م	2	5	51	140	751	198	15	ŧ
	ILOI	A	DAYS	NAOO	16.	0	15.	ď	0.	0.	10.	.64	+0+	0.	.0	٠.	126.	78.	0.	3.	.0	2	3.	29.	55.	5.	36.	17.	31.	13.	7.	.6	.0	.0	86.	.69	130.	38.	39.	39.	200.	. 46	45.	.6	17.	41.	10.
			STAC	1100	6,5	-	724	a.	0	c	20	146	90	0	c	c	126	233	c	17	C	137	36	343	1487	162	2267	360	1846	95	7	101	0	0	36	1511	391	149	39	39	200	753	225	838	748	122	30
		EIC	JUD:		GR	GF	61	d P	5	LA	10	H	17	M1	M3	Mt	M5	M6	M7	NC	CIN	NB	6N	p1	p3	54	90	GB.	00	41	60	K1	44	R7	EB	2	4	9M	I	X X	7	M3	5A	58	50	5F	5H

WOT DEFERATO

DEFERRED

H I P AVG HAINT HRS	12.		•		3.	.0	10.	23.	11.	*	37.	•	: .			1.	.0	64	31.	21.		36.	10.	21.	3.	7.	2.				75.	21.		20.	;	24.	•			2	'n.			2.	,	18.			ċ	
TOTAL MAINT HRS	131	•			100	0	10	158	22	1	11	- :	3 6	16	19	25	•	533	152	150		156	105	1602	57	137	•	210	11	•	7.3	103	613	61	16	1192		~	~	1,	13	*	13	9	21	295	00	•	0	0
A T W O AVG DAYS	21.		•	36	200.	0	.94	43.	14.	220.	. 68			170.	131.	34.		135.	112.	. 28	38	109.	100.	103.	84.	121.	72.		33.	0	168.	115.			.86	.69	•	152.	17.	104.	. 89.	128	75.	138.	7.	26.		.11.	0	.0
TOTAL DAYS DOWN	228	0	0	34	200	0	9#	599	27	0 * *	267	111	818	1833	1306	429	0	1486	8 1 1	604		653	966	7958	1507	2295	183	477	132	0	168	575	106	134	391	3397		152	17	1985	m + + +	506	373	415	691	1739	00	232	0	0
A A VG HRS	158.	•		• • •		0	0.	.0		7.	•		• •				11.						34	17.	.0	.,	• •			.0	10.	•	••	138.	16.	3.	•		12.	.7.	•	•		0.	10.	6:	5.	. 9	٠.	.0
TOTAL MAINT HRS	633	9	17	190	12	0	0	0	0	25	0	N			0	13	11	198	17			56	135	698	0	37	13			0	163	0 0	-	1102	32	€ .	0 0	v •	12	28	0	- 0	. 0	0	53	112	16	12	3	0
T L O T	129.	399.	220.	26	125.	0	0.		•	88.	•		•	. 0	0	133.	29.	105.	. 26	.06		135.	**	175.	0.	90.	70.			0.	293.	•	•	.65	45.	190.	13.	14.	62.	459.			.0	0	.060	82.	78.	.45	A2.	• 0
TOTAL DAYS DOWN	515	399	0 + 0 0	250	200	0	c	c	0	263	C	5	00		0	532	53	5504	291	179	.75	539	176	7003	0	537	210	162	0	0	4597	6		470	169	190	13	14	62	1315	0	186		0	970	1061	235	103	42	c
AVG AAINT HRS		.0		•		8	.0	5.	15.	0.	.51	••	• •		0.0	1:	3.	24.	5.	11.	•			11.	0.	2.				51.	0.	•		• •	. 9	2.		•		0.	0.	•	. 0			٠.			٠,	
L S H TOTAL MAINT HRS	1	0	11	101	32	89	0	2	15	0	75	0 1	0 0	0 0		. 1	2	238	10	06	* * *	110	19	195	0	11	9	141	9 00	51	0	0	2 0		42	101	9 (0 0		0	0	00	00	2	# !	757	120		C	2
AVG DAYS DOWN	24.	0	•		3.0	;	0	23.	10.	.0	11.	•	• •	•		2	0	.62	в.	15.		• •	32.	33.	0.	88.	***		.0	.69	0	•			19.		25.	•				•		.6	•	6:	.0.	20.	0	14.
C 0 TOTAL DAYS DOWN	4 3	0		700	41	t	c	23	10	c	11	c :	+ <		C	•	c	590	16	119			159	564	c	529	88	196	. ~	65	•	0	•		136	447	9/			c	c		c	6		1425		2	c	
AVG MAINT HRS	18.	22.		.02	: :	3.	0.	.0+	.6	11.	20.	.0	•	• •		0.0	5.	ŧ.	. 8	18.			17.	5.	3.	3.		••		24.	12.	7.	• :	37.	3.	5.	• 0	10.		.,	. 9			.9	28.		1.		1.	2.
S H I P TOTAL MAINT HRS	53	43	13	046			0	9.0	56	21	61	0	0 0		16	0	25	111	98	220	000	49	234	305	c	10		101		96	165	14	200	110	\$	96	0	10		122	17	000	. ~	51	140	751	1,16	15	,	,
AVS DAYS DOWN	16.	28.	36.			0.	0.	10.	.64	.04	. 46	•	•	126	78.	.0	3.	5.	3.	29.		. 50		36,	3.	17.	. 6.	73.	56.	72.	84.		.11.	13.	7.	.6		144.	86.	.69	130.	. 28.	39.	. 46	45.		.0.		10.	
TOTAL NAYS DOMM	64	95	7.5	427	و ه	c	0	20	146	90	282	0	50	136	233	0	17	137	36	343	1487	150	719	2267	S	360	4	1846	77	289	1171	~	200	39	1	101	0	144	98	1511	391	189	3.9	753	225	H6H	94.7	1.42	40	-
t IC CODE	GP	39	25	15	5 4	7	F	Ln	H	17	۲4	N.	5.5	4 2	MA	M7	NC.	NB NB	62	7	64	1 0	10	p.8	60	5	20	0.5	3 6	3	C.	9		5 5	67	н1	86	1 7		U.3	N.	93	×	M3	5.A	20	2 5	- 17	111.	71.

SHEWARY OF DATA FILE SHIP HIZ

	A I P A A V G HA I N T	. 63	17.	66.	13.	3.	18.	0	13.	12.	28.			14.	· a			• •		•		.0													32.	36.		
	TOTAL MAINT HRS	1577	168	99	26	•	108	0	56	15	226	6 10	c	516	0 0	~		20	41	27		0	c .	. 0	10	328	2	6	16	29	87	0	31	200	450	36	37	*
	A T A O O A A S A O O W A S A O O O O O O O O O O O O O O O O O	1113.	163.	35.	32.	381.	189.	0	13.	277.	126.	263.	0.	88	200.	245.		.0.	. 66	.64		.0	.0.	. 0	124.	162.	144.	48.	33.	124.	56.	67.	122.	80.	116.	118.	25.	
RRED	DATS DATS DAM	3145	1627	35	# # # & &	1142	307	0	3000	277	1007	263	0	3339	1201	545	0	00	969	236	00	0	0 2	0	248	7117	287	143	229	1119	1724	134	1462	1010	1511	118	284	**
0 6 5 6	A A VG HRS HRS	158.	i e			0	0.0	0		11.				13.	34.	17.			19.			10.	.0.	.2.	16.			3.	12.		0.	3.		10.	6	13.	•••	
	TOTAL MAINT HRS	633	12	00	5 0	0	00	0	0 .	111	194	17	3	51	135	698	0:	19	673	*	00	163		2011	32	0 10	~		15	00	0	6	0 0	000	112	5.5	12.	c
	T L O T	129.	125.		. O. A. B. B.	0	.09	.0		.66	105.	.00	529.		130.	175.	.00	70.	97.	11.		253.		195.	85.	13.	39.	14.	62.	0.	0.	62.	0	290.	, 2a	-14.	. 20	0
	TOTAL	440	500		263	c	09	0	. 45	200	2204	379	629	175	176	7003	C 2 2	210	4380	162		1664	0 20	195	169	13	39	14	65	0	c	1 46	00	970	1901	224	109	C
	AVE AAINT HRS					0	1.0			3.			900.	10.	10.		œ u		21.	٠. ۵		0	.0	· w	2			0.		3.	. 4	.0			10.	12.	;.	: •
	TOTAL MATHT	90	t 0.0	0 0	0	0		0	0 -	- a	74	17	A00	5.50	108	52	60	200	2016	900	0	0	200	200	# !	105	0	0	00	9 9	17	0	0 =	Э КО	1154	121	5.5	0
	AVS DAYS DOWN	;;					00	0		1.	· 0		32.	7.	. 55 44		٠.	29.	. 9	11.		0.	• •	36.	30.			0.		1.	15.		• •	12.	*	-		
a E n	FOTAL DAYS	53		cc	cc	•	ce	0	c c	. M:	61	2.	35	454	4.31	. K	K 277	3 8	625	285		c	c c	72	69	- "	c				5 5	0	c -	24	315	v	127	c
E F F	AVG	18.	.1.	40.	9.	20.	3.	7.	· ·	. n	•	4 4	27.	8.	17.	5	3.		· ·	٠. ٥		12.		3.	· ·	•	0.	10.		• •	2.	۶.			7.	5.	· ·	: 0
0 1 0 2	S 1 L P	13	0	30	24	51	00	1	16	52	1117	230	730	283	234	305	9 2	0,1	4.37	11	36	155	110	3	2	+ -	0	10	~ ?	17	c	2	~ .	1+0	731	1 33	15	0
	AVS DAYS DOAY	36.	3.	10.	. 60	. 16		126.	78.			. 60	.55	5.	42.	36.			31.	73.	72.	84.	11.	1:	7.	• •		144.	. 25.	130.	53.	.65	59.	42.	.6	17.	+1.	.0
	TOTAL	7.5	4	02	146	212	20	126	233	17	137	343	1437	162	152	2567	v. c	350	1846	292	289	1111	22	1	1	101	0	1.44	36.	391	149	65	5.4	225	434	24.5	122	c
	LTC 30E	62 B	157	25	5	۲6	13	13	146	NC	18	67 5	p3	44	54	284	60	500	90	A 1	3	¥	N.D	100	67	TY Y	12	AM	NB.	پاد	57	Į	Y X	200	5H	35	36	5 x

SUMMARY OF DATA
PILOT SHIP # 4 VS. CONTROL SHIP # 1

	H I P AVG MAINT HRS		• •	ė ĸ	~ ~			0			•		15.						17.	.0	•					; 0		.0	11.	8	2						
	O L S TOTAL MAINT HRS	e n e	20	100	* 0		00	•	00	•	0 0		15	10	•	- "	0	0	92	0	0 6	0	0 :	0	54	c •	0	0	==	~	*	a c		0		000	0
	AVG DAYS DOWN	53.		71.	51.		•••		••		•		*0	65.			0	•	10.		•				52.	. 26.			13.	.64	11.			0	•		•
ERRED	TOTAL DAYS DOWN	53	0	213	102		00	0		0	0 0	•	0 +	326	0	0 6	0	0	25 0	0	00	0	0	274	209	282	0	0	9 6	61	22	116		0	00	000	0
0 5 6	AVG MAINT HRS								•		. 64	. ~		58.		, t	. 6	•		.0			٠.	• •	~	• •		3.		٠.	.0	•	33.	. ~	31.		.0
	TOTAL MAINT HRS	25		60		0 0	00	0	00	0	124	N W	0	291	0	* c	15	0	0 0	0	11	-	14	28	c	12	11	2	0 6	t	0	0	228	~	31	0.	c
	AVG DAYS	122.	0.0	.0	28.	52.		0.	•••	0	52.	67.	.0	38.	0	72.	109.			0	109.	43.	68.	77.	A.3.	. 69	. 63	71.	0 6	56.	0		20.	94.	2:	50.	.0
	TOTAL	504	, - ;	129	28	104	00	0	c 0	0	104	134	0	192	0	12	217	0	; 0	0	327	£ 0	404	230	250	41.4	211	71	682	112	0	c ;	267	**	٠:	500	6
	AVG MAINT HRS	20.0	.0.	1.	•			0	• •		•		٠.	. c		~ ~	• • •	0.		::	• •	; :	0	~ 0		•		0.	• •		.0	σ.		3.	;		• 0.
	TOTAL MAINT HRS	25	0	0 7	00	, c	00	0	0 0	0	00		0	1 48	~	~ 4	0	0	10	-	۰:	3	0	17	0	0 0	0	0	00	0	0	σ.	910	9	143	20	6
	AVG DAYS DOWN	13.	0		••		000			0	•	32.	0.	15.	19.	•				0	.0.	.0		· c					•		0	640	. י	11.	.	::	• 0
r 3 &	C D TOTAL DAYS DOWN	113		c c	c c	c	cc	c	c C	. c		32	0	564	1.8	c c	c		· c	c	C 4	-	c .	61	•			c	cc	0	c	0 .	4 4	53	125	o c	c
OEFER	AV6 WAINT HAS				ç a	28.		1:	ю м •	0.	•	· w	. 2	30.		3.	12.	2.	· ·		26.	· w	0.	1.	٠.			0	• •	0.		•	• •		3.		• 9
NOT	S H I F TOTAL	000	00	3 #	19	28	8 ~	-	3		00	54	5.4	261	51	18	174	10	s c	. 0	128	5 K.	0.	- 0	0	c 0	- 0	·3	00	. c	ت	2 :	71	18	28	4 %	0
	AVG DAYS DOWN	31.	• •	1:	38.	· a	14.	6	32.	0	• • •	1:	1.	14.	2	.1.	22.	17.	51.	10.	.27.	29.				• 0			•	0	0			13.	-07	10.	٠,
	TUTAL NAYS UOM'S	3=0		c -	150	, 1	c ±	•	195	, 5		: o ·	13	141	3.3	# C #	35	47	26	10	163	245	c		c	c (c	e 0		c	-		103	225	145 0.5	9
	ETC	45 G.	4	33	3	20	25	F.3	34	17	ا در	F 17	62	40	14	3 :	س و و و	36	3 -	17	60	£ £	4	2 5	4	3	3 3	346	2 .	1 2	4	7.	r (36	5F	51,	22

1 0

M A V G		1.0	, .		٠. د	c		22.	16.	253.	21.			44	20.	21.	ċ'n	13.	21.		31.		*	21.			, ;			÷ .	• •	•	2	÷ •	13.	0	٠.	;
O L S TOTAL MAINT HRS	800	176	m c	. 0	-0	0	00	*	93	1012	63 2	0	1,4	265	102	149		141	42	2	62	00	-	20	o N	0	* 40	14	0;	90	00	0	*		8	0	N =	
A AVG	55.	35.	73.	•••	.69			215.	86.	75.	26.		38.	111.	. 48	. 68	166.	116.	82.	50.	.0,		119.	106.	22.	0	154.	145.		150.		.0	132.	160.	73.		70.	11.
TOTAL DAYS DOWN	165	3 3 3	73	0	69	0	00	430	513	599	79	0	75	666	418	620	463	1279	164	50	80	00	237	455	220	0	154	870	0	306	0	0	263	084	509	0	20	1,
AVG MAINT HRS	0	47.	30.		10.		36.	74.	13.	0	39.	19.	, u	63.	. •	;	• •	18.	o a		23.	35.	0	æ e		7.	o r		8.				;	200	17.	11.	23.	
TOTAL MAINT HRS	35	. 66	210	t 5	10		19	7.	50	0	350	34	53	948	99	~ "	39	581	5 to 0	1	163	35	0	34	15	1) t	-	13	32	140	6	47	+ •	918	54	161	
AVG DAYS DOWN	58.	65.	107.	t 7 .	32.	0	181	25.	138.		76.	72.	124.	35.	A 5.	54.	34	39.	76.	38.	21.	. ee	0	65.	113.	43.	68.	77.	116.	73.	63.	.99	A5.	96.	42.	41.	39.	• 00
TOTAL PAYS DOWN	¢77	129	751	236	32		157	52	550	0	169	144	618	521	745	47	4 6 6	1300	380	16	147	646	C	951	339	43	1406	230	580	725	313	131	1015	112	2013	206	273	nc
AVG MAINT HRS		24.		• •	· ^	. 6	• •		· c	0	30.			30.	7.	10.	* *	9	.91			· ·		2.	1.				27.	້ຳ			0.	• •	18.	3.	~	
TOTAL MAINT HAS	202	20	000	00	26	0	19	001	N C	c	0 %	0.00	17	934	43	41	÷ c	304	35	100	(7 =	1	~	21	7	0 7	-	54	14	0 0	۰ ۸	0	0 (1003	6	~ .	18
AVG DAYS DOWN	92.						· · ·		50.		•-	12.	3.	· •		0.	. K	• •			ċ.	1.0	1:	1.	٥.	.0	• •		. 6	10.			0.		200	0	· .	;
TOTAL DAYS DAYS	906	0 0		0	c -	- c	ני כ		02	c	c -	24	15	173	4	0	250	321	7 2)	c :	, c	. ~	- '	50	c	c 3		11	30	= c	0	6	c	272		0	ď
AVG MAINT HPS	11.	C.K	·	13. 28.	6.		÷ -	· 10	, d	0	0 4		*	3.	3.	3.		. 6	12.	50.	28.		. r.	17.	. 0	3.		. 0	2.	•		0.0	0.	• 0	. ·	11.	5.	2.
S H I F TOTAL MAINT	222		500	2 2	0 K	n #	۲.	17	2	0	C 1	0	53	427	37	126	1,1	529	96	50	395	2 ~	10	153	21	ю	0 1	. 0	2	12	3 C	0	0	0 (203	257	69	2
I L O T AVG DAYS DOMM	10.	ė ė ir	30.	· «	110.		- 0	39.	32.	0		. 0		. a	16.	1.	000	. 6	11.	• •	•			54.	1.	28.	•	0	3.	3.			0	٠.			15.	10.
TOTAL DAYS COUN	77	: - 3	150	4 1	110	0 6	- 0	195	11.7	0	c 0	0	16	190	189	4	0 5 1	553	91	101	78	111	10	215	c v	28	C 2	0	3	9 0	c c	. 0	U	c	274	115	227	32
CONE	198	33	5 5	ב ני	35:	12	16	3.5	2 ×	7.	2 2	6N	P1	P 40	9e	P7	60	00	96	3 5	š	2 5	27	60	R R I	¥:	1 1	2	E.F.	5	- X	0.4	F 3	45	24	20	36	15

SUMMARY OF DATA
PILOT SHIP # 4 VS. CONTROL SHIP # 3

NOT DEFERRED

	H I P	HAINT		6:	•		64	25.	•	:.	:.	19.		8	•	ċ		18.	19.	15.		27.	-	53	15.	19.			30.	0		12.	24.	•	••	13.	6	6	•				12	0	ċ	200			ċċ	•
		MAINT		41			96	1.	0	۰.	- ^	28	•			•		1.8	37	12	000	101	12	481	75	92	684	22	68	0	0 0	70	47	9 .	280	56	35	58	100		6	0	2 0	,0	0	0 6	, en	0	00	
	œ	DAYS	.0	121.			177.	104.	•;		159	52.		19.		27.		112.	119.	25.		235.	72.	80.	48.	45.	22.	55.	78.			73.	38.	36.	. 200	110.	107.	62.		221.	158.	•	13.	. 0			47.	.0	•	
1		DAYS	•	603	0 0		353	312	• :	151	317	155		19	•	2 10		112	237	52	1601	1707	797	719	239	166	2716	165	235	0		438	75	36	000	220	456	185	191	221	158	0	1/1	0	0	211	47	0	00	,
		-																																																
2	PAVG	MAINT	7.	•	, ,	47	ю.	30.	•	.01	•		6	36.				30.	39.	19.	'n	63.	9	3	;		•	. 6		23.		. 6	5.	۲.	• •		2.		, ,	'n	5.		• •		ċ		11:	23		,
	S H I	MAINT	59	35	v c	93	8	210	0 :	0.		19	27	72	*	2	0	180	350	38	125	948	26	1	1	39	, F. F.	45	54	163	32	2 40	15	-	0 =	24	-	13	25	14	6	r:	+ =	0	0	7 618	24	161	- 4	,
	AVG	DAYS	112.	19.	.00	65.	17.	107.	•		143	52.	10.	181.	52.	. 88.		28.	76.	72.	124.		83.	24.	25.		160.	76.	85.	21.	. 69	65.	113.	43.	111.	71.	77.	116.		63.	.99	134.	. 4		0	. 6.3	41.	.64		•
	TOTAL	DAYS	644	472	000	129	17	751	0 5		1 +1	157	30	362	62	550	0	169	680	144	618	1134	745	47	45	205	1300	380	556	147	395	456	339	£ #	502	1420	230	580	52	313	131	134	1015		0	178	506	273	50	
	I P AVG	MAINT	22.	.	•		.9	.0		: .	•	. 20			•	•	. 0		.0		~ 0			1.	.0	1.			10.	13.	•		. 9		•		.0		•				•		0.	.0.	3.	10.	• c	•
	L S H	MATNT	99	12	N C	0	57	0	0 1	0 0		34	0	0	0 0	.	0	0	0	11	N a	0	16	1	0	~	2 6	0	10	177	35		25	0	0 0	0	0	0	00	0	0	0	0 0	. 0	0	0 222	44	50	# C	,
	N T R O AVG	DAYS	•9	24.			.9	0.			•		0.		•	•		0	.0	0.		.7.	20.	0	0.								7.	0.	•		.0	0			0		•	0.0	0.		. :	7.		• • •
:	TOTAL	DOWN	1.9	96			119	c .	0 .	6		-	c	0			0	c	c		E K	306	20	c	0	-	1,		0	r .	K C		56		0 0	0	0	c .	0 0		c	c .			c	0	19	13	c	
	A	HAINT		.:	• •		3.	5.	13.		•	;		.;	• •	• •	. 0	0.	18.		• •		3.	3.	1.	•	• 0	12.	5.	28.	3.	17.	5	3.	•	3.0	.0	2	• •	• •	0.	. 0	.0		٠.		.11.			• • •
	۵	THE	60	25	v c	00	31	23	25	N M	n a	1	18	-!	71	2	0	0	18	0	00	427	37	126	1	57	500	96	66	395	5,0	153	77	60	00	13	0	~ :	12		0.	0		· ~	c	0	237	64	9 0 2	
	1 L 0 T	DAYS	31.	10.			5.	30.	•		•	1:	3.	.6		21.	.0	0	٠.	.0	:.	A.	16.	1.	0.	29.		11.	• 9		•	24.	1.	28.	•	1.	.0	3.	• •		0.	•		31.	0.			15.	10.	
	TOTAL	DAYS	62	19		0	41	150	36	111	2 6	-	17	0	195	107	0	0	^	9	4 .	1 40	189	tt	0	4.39	5 4 3	91	131	7.8	111	215	9	28	0 0	2	0	K 2 ·	r c		0	c	= 0	51	U	0	114	227	9.	
	£10	3000	69	61	200	3	25	E.	2	1	;	197	M1	MA	3 3	2 4	M7	NC	82	67	12	50	96	p7	60	69	200	9	96	ž.	5.0	60	K1	E.	3	3	Q.	4	9 3	X	9,5	X.	5		7.	53	25		25	

SUMMARY OF DATA
PILOT SHIP # 4 VS. COMTROL SHIP # 4

	HIP		HAIN	:		5.		٠.	;,			. 2			3.							2	2	10.					-		:		19.	13.	2	•			2		2.		16.		
			MAINT	*6	1 0	25	0	N •		88	0		~	52	•	25		11	9	21	18	•	16	99	50	50	va	45	1	0	30	0,0	58	13	0		9	^	-	~	16	~ !	121	> n	0
0	ONTR	AVG	DOWN	166.	205.	117.	•	.604	• • • • • • • • • • • • • • • • • • • •	160.	0	128.	18.	59.	545	257.	78.	429.	79.	93.	43.	70.	100.	108.	. 16	106.	. 65	71.	399.		288.	12.	47.	0	131,		50.	.68	72.	251.	. 98	56.	.00		0
EPRE	U	TOTAL	DOWN	662	205	583	0	604	127	1279	0	256	18	589	242	1800	100	600	157	1118	85	280	701	753	772	532	0 4	785	399	0	2018	36	141	0	393	0	150	89	289	251	688	95	**	0 0	0
1 L	a	AVG	HRS	7.	0.	.,	۲,			35.	0	. •			36.				30.	30.	1.	3.	7.	65.		••		20.		27.			5.	7.	2.	• •		.0	ж.	3.	*		13.	24.	
	IHST	TOTAL	HAINT	59	0	35	a o	0 6	20	141	0	54	0	14	72	*			180	238	1	23	135	915	;	1 24	1	543	54	161	35	4 2	15	-	11		58	0	14	2	43	*	154	161	2
	PILO	AVG	NACO	112.	0.	.61	58.		.7.	27.	0	39.		78.	181.	5.0	. 50.	0	28.	83.	77.	124.	61.	28.	80.		168	45.	85.	15.	. 66.	67.	113.	43.	. 89		77.	0	63.	134.	19.	. 26.		. 6 %	105.
		TOTAL	NMOO	644	0	472	58	000	127	109	0	156	0	156	362	52	451		169	199	11	618	1159	397	00+	145	168	1205	256	91	595	403	339	4.3	406	1064	612	0	313	134	A71	112	1904	273	105
	d 1	AVG	HRS	2.	0.	•	.0	. 96	27.	9.6	0		0.	2.	.0	· •			0		10.	1.	0.	2.		•	•		2.	÷ .	'n	• •	7.	÷	0.			0	0.	٥.	•	.0.	10.	•	
	HS 7 U	TOTAL	HAINT	~	C	16	0	¢, c		36	0	+	0	1	0	99	000		0	9	30	1	0	55	n d	00		9	*	13	158	0	82	16	0		0	0	0	0	0	0 5	25.	61	17
	NIR	AVG	NAOC	~	0.	.5.	•		, ,	, 10	0		.0	•	•	;.					0	0	.0	3.	28.	• •	• •	'n	0	· 2	• •		æ	0	••	. 64	. 0	0	0.	0.	•				26.
2 2 2	U	TOTAL	DOWN	۸.	c	74	0	5 4		2.5	0	c	0	-	0	7.52			c	24	c	0	0	35	۲,	c c		88	c	14	124	00	116	0	c (6 4		0	c	•	c .	0 75	100	-	79
0 5 7 5	a	AVG	HAS	;	• 0	111.		•		• •	13.	•	•	•	•	· ·		0	. 0	18.	0.	3.	5.	18.	• •	• •	6	9.	3.	35.	•	31.	~	3.	• 0		• • •	0.	0.	.0	• 0	•	• • •		0.
2	SHI	TOTAL	HAINT	60	0	22	N C	00		3	52	0	\$	1	0	s c		. 0	0	18	0	32	0 4	324	31	603	2.0	491	61	390	60	124	1.8	3	0 0	NC	0	0	0	0	0	0 .	011	100	0
	1 6 0 1	AVG	DAYS	31.	.0	10.	75.	•	• •	• •		0	.0	1.	•	126.	. 69	0	. 0	8	0	1.	1.	6	18.		27.	6	7.		•	40.	.0	28.	• 0	•		0	0.	0.			:,		
	C	LUTAL	DOWN	20	0	1.9	75	0 0	2 2	20	36	0	0	1	0	126	100	0	. 0	^	c	10	18	167	183	12.7	813	264	130	78	111	181	٨	47	0.	10	c	0	o	c	0	0	107	777	c
		EIC	CODE	GR	MS	61	9	4 =	3 :	5 -	707	10	L3	9	43	14	3 4	1,7	NC	N	6N	P1	69	44	90	2 0	000	00	OF	× S	5.0	60	41	5	T	3 1	0	H	* X	A.R.	10 M		ביי כיי	2 2	25

SUMMARY OF DATA
PILOT SHIP # 4 VS. CONTROL SHIP # 5

					-																																
	4 1	AVG	MIN	I X		2	.0			100				3.	•		.0			•	•	2								•		2		8	;		.09
	ROLS	TOTAL	LAINE	THE	•	375	•	•	0	100	•	•	•	•	18	•	•	•	0	•	•	~	•	•	•	•	0	•	0	•	0	~	0	*	*	0	120
	- NO	AVG	DATS	NAOO	•	*	•			.04			•	33.	18.		•	•	•	•	•	11.	•	•		•	•	•	•	•	•	. 95		95.	26.	•	58.
RRED	2	TOTAL	DATE	DOWN	•	305	0	0	•	84	0	0	•	33	53	•	•	•	•	•	•	11	0	•	•	•	•	•	0	•	•	85	•	190	96	0	115
0 2 4 5	۵	AVG	LAINE	HKS	•	35.	.0	.9	10.	36.	74.	.0	10.	30.	30.	3.	65.		;	. +	.7.	;	20.	3.	8.	27.		35.	2.			•	3.		19.	23.	6
	SH	TOTAL	TAIAE	HKS	35	141	0	54	10	72	14	0	30	180	238	23	915	41	-	1	34	#	543	21	54	161	32	35	1	10	28	0	14	t 3	154	161	81
	PILOT	AVG	STAG	NMOG	.61	27.	.0	39.	32.	181.	25.	.0	150.	28.	83.	124.	28.	.08	24.	23.	93.	168.	45.	82.	85.	15.	.99	.94	77.	122.	77.	.0	63.	.64	47.	39.	36.
		TOTAL	STAC	NMOU	472	109	0	156	32	362	25	0	451	169	199	618	397	00%	41	45	463	168	1205	327	556	91	395	9#	230	487	612	0	313	871	1884	273	325
		AVG			.6		0	.0	10.	50.	30.	3.	.0	16.	9.	2.	13.	•	3.	0.	.0		1.	5.	1.	0.	0.	0.	0.		0.	0	0	0		0.	. 0
	OLSH	TOTAL	TAIAM	HKS	34	0	0	0	10	20	30	ю	0	81	52	8	126	0	9	0	0	0	1	S	~	0	0	•	0	0	0	0	0	0	11	0	0
		AVG	DATE	NAOL	1.	.0	.0	0	8.	.8	.8	.0	.0	12.	÷	.99	7.	0	.99	0.	.0	•	.94	21.	.0	0	0	.0	0.	0.	.0	0	0	0.	0	0	
RRED	0 0	TOTAL	DAYS	NMOO	6	0	c	c	8	8	8	0	c	5.8	56	99	99	0	132	0	0	c	94	21	6	0	0	0	0	c	0	c	0	c	c	0	0
DEFE	a	AVG	NIVE	HES	11.		15.	.0	.6	0.	5.	.0	7.	.0	18.	3.	18.	5.	3.	0.	. +	6	.6	10.	3.	.6	3.	.0	0	•	• 0	.0	0.	.0	5.	• 9	1.
1 0 N	SHI	TOTAL	MAINT	HXS	22	ŧ	94	0	6	0	S	0	7	0	18	32	303	18	55	0	43	58	488	38	61	18	38	0	0	0	0	0	0	0	170	58	S
	ILOI	AVG	DAYS	NMOO	10.	.0	12.	0.	110.	•0	126.	•0	*6*	.0	2.	-:	10.	13.	2.	0.	36.	27.	9.	11.	7.	• 9	10.	•0	0.	0	0.	0.	0.	0	7.	7.	25.
	۵	TOTAL	DAYS	NMOO	19	0	36	0	110	0	126	0	64	0	^	10	163	51	34	0	433	81	492	45	130	57	104	0	0	0	0	0	0	c	556	72	123
		EIC	CODE		61	4	۲٥	10	3	M.34	Į.	N.S	.9W	NC	67	P1	ħd.	94	P7	64	96	00	OD	30	36	Y.	23	61	O.	L	91	I	XX	MA	5R	5F	5H

SLIMMARY OF DATA
PILOT SHIP # 5 VS. CONTROL SHIP # 1

101

H I P AVG	6.0		:::		•••				•		6.6		•••	~ ~ ~			
R O L S TOTAL MAINT HRS	9%0	2*			000	057				9000	0 % 0	195	001	t t in	0 90 0		00
O N T O O N T O O O O O O O O O O O O O	• • • •				:::	6.00	•••	31.	•••		0 20	52.	13.	111.			••
TOTAL DAYS DOWN	299	102			000	324		- 6 -	000	,	3760	282	006	49 22 116	197	0000	00
278																	
AAINT HRS	144	N 0 0 0	NOC	# O N	0 N K	0 1 9	SO	NMO	001	N = C	0 - 0	000	400	00-	013	MAN	00
T S H I TOTAL MAINT HRS	113	4000	0000	# 0 N	.	0 1 2		0 0 0	0 6 =	พล	0 + 0		400	000	0 1 0	2000	N 0
PILO AVG DAYS	177.		, n o o	234.	175. 200. 140.	227.	69	38.	137.	9 9 9	400		39.		221.	25.5	38.
TOTAL DAYS DOWN	255 1417 270	****	, to e	36.0	1049	227	69	45	1237	25940	279	000	99	000	221	391	80
2 7 0																	
AVG MAINT HRS	918	0 4 0 0			000			N N O	O PO C		.000		000	000	13	w ± m	00
O L S H TOTAL MAINT HRS	1089	9400			000	138			929	.40	10.0	000	000	000	26	143	00
ONT R AVG DAYS DOWN	14.				•••	32	180	•••	0	000	000		•••		.5.	11.1	•••
TOTAL	114				000	35	- 61		0 10 0	.00	020	c o o	ccc	c c 5	119	125	cc
AVG MAINT	15.			13.0	25.	, M & 0.			15.					•••	2 0 0		•••
S H I TOTAL MAINT HRS	384	5 5 5 E	9046	1307	128 0 505	37	30 30	132	116	000-	1000	0+0	200	000	0 9 6 6 0	£ \$ 2	00
T L O T AVG DAYS DUWN	::00		36.		11. 0. 8.	້. ບຸ									0 + 0		•••
TOTAL DAYS DOWN	€ # C	20 M d	3,00	20-	101	4 4 3	200	232	C # C	000	040	150	000	c o o	0 # 4		0 0
EIC	89 E	355	322	2122	N G S	1 6 4	96	8 6 8	35.	200	935	49 I	X 0 M	5 9 7	3 C C C	5 7 E	52 52

SUMMARY OF DATA
PILOT SHIP # 5 VS. CONTROL SHIP # 2

A A VG	2002.	, choop		253. 21. 21. 7.	23.5.5.	, , , , , , , , , , , , , , , , , , ,	£ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
OL S TOTAL MAINT	8001	0 100	000000	63 14 63 24 64 64 64 64 64 64 64 64 64 64 64 64 64	121 400	**************************************	N 0000384000043
DAYS DAYS	30 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	. v. c c c c		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	84. 84. 166. 127.	4 4 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	150 150 160 160 73 73
TOTAL DAYS DOWN	165 0 52 35	. o K o o 2	1790000	200 C T 400 C	124 64 6 124 64 6 164 64 6	24422400600 24422400600 2442240060000000000	5 4 5 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
A AVG	94. 105.		107. 16.	. 50 T T 0. 5. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.	นู พู พู พู ซู ซู ซู ซู	ราชานั้น เพิ่ม ค.ศ เพิ่ม ค.ศ เพิ่ม ค.ศ เพิ่ม ค.ศ เพิ่ม ค.ศ	: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
T S H I TOTAL MAINT HRS	1875 632 15	20000	4 6 9 6 0 0 C C C C C C C C C C C C C C C C C	111 111 115 115 115	125 125 126 126 126	0 t 1	95 F F R S C C C C C C C C C C C C C C C C C C
DAYS DOWN	154. 73. 222. 85.		156.	141. 141. 149.	141. 69. 82. 116. 122.	134. 240. 143. 34. 112. 732.	2 2 3 3 2 2 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
TOTAL DAYS DOWN	3070 73 1331 510	e o o t o	1068 1068 1068	1934 1934 1937 163 168	4524 69 329 116 1952 1051	2004111882000000000000000000000000000000	8 8 8 10 11 11 11 11 11 11 11 11 11 11 11 11
I P AVG MAINT HRS	2,019			000 m + 0 m	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	10,400,000	N 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
OLSH TOTAL MAINT HRS	202	00000	, r o p o c a c	30 00 17 17 17 17 17 17 17 17 17 17 17 17 17	386.901104	201001010101010101010101010101010101010	2 4 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
AVG DAYS	* % ° % °		20000000				, , , , , , , , , , , , , , , , , , ,
TOTAL DAYS DOWN	66000		KO-0	100 C L 20 C K		2 t 2 T N N 2 t 2 C 1	118
A A V G MAINT HRS	*			24,33,4	င်းပိုင်းလိုက်ခဲ့ပါ	7 7 7 6 7 6 9 7 6 9	
S H I TOTAL MAINT	636	, c + 1, c ×	110711	113 130 130 130 140 140 150	36 36 298 15	20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	122 122 133 134 135 135 135 135 135 135 135 135 135 135
I L O T AVG DAYS DOWN		3	36.000	;	1040,000	2,4000000000000000000000000000000000000	25. 25. 25. 25. 25. 25. 25. 26. 27. 27. 27. 27. 27. 27. 27. 27. 27. 27
TOTAL UAYS	40000	3 2 8 4 0 11	36 71 0 2 1	254 254 34 44	35 26 56 56 10	11 - 12 - 13 A D D D D D D D D D D D D D D D D D D	878 878 878 878 878 878 878 878 878 878
E I C	3553	55555	34.36.51	P 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	9 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	2222222333 22222222333	T O I X C I W U O V C U

	H I P AVG MAINT HRS	6646	25.	:::.		¢ ; 6 6	50.0	34.	53.	95.	30.0		100	ž.,		· • •	:::	:::	30.	
	O L S TOTAL MAINT HRS	0530	180		e N D		005	574 103	481 68	72 95 502	88	009	20 4	32 8	0 0	n o c	25	000	910	066
0	DAYS DAYS	121.	177.		19.	27.	0000	65. 272.	72. 80. 50.	63.	78.		38.	110.	51.	158.	13.	•••	15.	¿.;
. A R E	TOTAL DAYS	2003	353	000	155	0 2 0 0	005	654 816	797 719 199	2397	235	3700	220	150	202	158	171	000	147	ces
UEFE	AVG MAINT HRS	94.	, m m o		107. 3. 16.		39.	ພຸ ຍູ ທຸ	ທ. ພ. ທຸ ທຸກຄຸນ	÷ 6.0	23.	13. 5.					, n c	::0	.; ÷ «	
	S H I TOTAL MAINT HRS	1975	23 0 0	0000	427 95	343	18 224 117	75 153	25.0	56 126	4 4 k	203	16	+ 00 t	9 9 0		o no co	-100	£ 8 3	400
	L O T	91.	57.	••••	160. 202. 178.	156. 156. 36.	131.	155.	69. A2. 116.	122.	118.	143.	115. 69. 232.	34.	128.	314.	39.	70.	126.	38.0
	TOTAL PAYS DOWN	456 3070 73	510 602 0	000	641 403 1068	938 1557 36 1834	392 1837 447	158	329 116	1952	168	2282	346	34	385	314	77	140	1176	4 & C
	AVG AAIMT HRS	2000		••••		••••		, o		- 0 +	10.	***			•••		•••	•••	3.5.	10.
	TOTAL.		520	0000	* 00	c o o o	0 0 11	18 60	210	00 c	10012	200	200	000		000	000	000	26 135 38	0 t 0
	AVG AVG NOWN			• • • •				18.	o					:::						
υ 	TOTAL. DAYS DOWN	4.0 c	. c . c	c c c c		cece	c 0 c	285	v c o	0 - 4	ccf	K C C	2000			ceo	cc	C C C	57.	K
F F F R	AVG PAINT HKS	14.			 	1. 13.	24°.	. ÷ .	 	*		10.	 				 		, s s s s s s s s s s s s s s s s s s s	:::
0 1 0	S F I P	636	0063	15	1001	15 13 130	544	2 t t t t 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0	36.0	32 2 2 2 2 9 8	2 ± 5	142 0 27	~ 6c	25	~ 2 ~	000	200	000	379	¥ c c
	NPIGOT VAYS VAYS VAYS	::::	i i i i	36.		27.	11.	 		.00.	000	000	•••	32.	16.	•••	17.	92.	- % t	000
	1,1,1	M C C C	- C 2 M	36	29	101	254	34 70 70	= 3	26.0	- O F	404	000	195	32 25	000	99	300	200	65 = =
	110	453	5355	335	16 N3	3 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0 9 5 2 6 8 9	P 2 2 1	P6 P9	80000	3 4 5	M 100	E E E	35	91	¥ 9 :	185	97.0	5.0 S.0 S.0 S.0 S.0 S.0 S.0 S.0 S.0 S.0 S	25.5

SUMMARY OF DATA

	AVE	TRS.	14.	•	2	;	3.	.; ·	•		3.	3.		•				5.					;					: .	3	.61	5.		:.			5	2.	62.			2.
	R O L S TOTAL	Ŧ	**	67	8	*	2	90		~	25	M	**		11	9	0	21	100	16	48	5	22	~ ~	42	-	0;	280		5.8	•	• •	1		1	16	2	247	12.	٥ (2
0	DAVE O	NAOC	166.	.0.	409	.08	17.	160.	128.	18.	59.	545	309	128.	429	79		93.				97.	87.	29.	7	399.	•	159	12.	.7.	131.			89	72.	96.	56.	246.	43.	•	. 70
	TOTAL	NAOU	662	200	604	159	232	1279	286	18	589	245	1544	128	604	157	0	1118	882	280	783	772	349	3 9	785	399	0	317	36	141	393	0	900	689	289	688	99	982	***	- (*
0 6 6	A A VG	HRS			615.	3.	•	•	• «		206.	•	34.	• N		14.	6	23.	39.				•	• •		43.		10.					•••		1.	3.	0	7.	•	N .	٤
	TOTAL	HRS	•	1	615	15	0	0 6	- ^	0	411	0	34	0 4	0 0	95	2	06	117	• :	124	2	0	68	12	43	5	108	13	0	0	+ c		0 0		2	0	- :	96	*	;
	- 0 5																																				-				
	P 1 L C	300	. 85	73.	270	85	0	0 0	100	0	170	0	234	0 0	36	177	200	140	147	227	122	69	0	130	**	95	240	141	86	0	-	20		0	66	39	0	221	00	2.5	
	TOTAL	NAOC	255	73	270	510	0	0 0	t .		340	0	234	0 6	36	1236	200	559	***	227	2815	69	0	1498	132	95	540	1547	559	0	0	279	200	0	66	11	0	221	220	113	
	AVG	HRS			34.	.6	37.	o . •			2.	•	;	• •				5.	10.				•	•		2.		, c		7.			•		0	0	0.		10.		
	TOTAL	HRS	~ [, 0	34	28	187	36	t c		1	•	99	9 00	, ,	. 0	0	9	30		20	, 10	0	0 0	9	3	13	158		82	0	- 1 :		00	C	0	0	0	183	13	
	A T R O	DOWN	2.		20.	2.		ກໍດ	•		0.	•	41.		•				•	• •	•	28.		•			. J.	•			.0	•	•		0	.0	0	•	•	12.	
2	TOTAL	DOWN	~;		50	ď	13	21	: c		-	c	752	-:			0	54	c (\$2	55		e c	98	c	14	129	c	16	c	0 0			0	0	c	-	362	104	
W W																																									
0 E F	AVG	HKS	19.			ċ	1.	u t		0	8	•	'n	• :		14	•	24.	œ ·	£ 3		. 0	ů	ກໍດ	=	8		13.	,		c	N :	• •		0	3.	0	. 49	÷ (n' c	,
-01	S H I TOTAL	HRS	5.5	0 0	0	0	12	t t			8	0			2 1	128	0	202	0 :	200	2.0	, 0	35	62	148	æ	# :	140	27	2	0	N s			0	9	0	19	516	0 :	
	I L O I	NMOC	:	•	0	.0	9.	3.			.0	•		٠,٢		11.	0.	8.					*	•		0.	19.	•					•	• •	0.	1:	٥.	*	2.	2	
	F TOTAL	COMP	m t	, -	0	с.	6	m a		0	0	•	10	0 0		101		163	-;	31	3.5		27	۸ =	247	0	113	* c	, ,	0	c			2	c	~	0	3	174		
	EIC	7	68	5 9	47	22	25	2	20	13	97	43	3 +	N.5	2 2	NC	9	811	62	100	200	96	14	800	30	10	O.	E -	60	R1	#B	3	3	I	X	M3	53	AC	25	25	-

SUMMARY OF MATA
PILOT SHIP # 5 VS. COMTROL SHIP # 5

TON

HIP	MATAI	HRS		54.		0	0	100	.0	0		3.	•	9	0.	.0	0.	•	0		5		.0	0	.0		0	0	0	0	2.	0	2.	0	;	.0	.09
	FAINT	HRS	0	375	0	0	0	100	0	0	0	€	0	18	0	0	0	•	0	0	~	0	0	0	0	•	0	0	0	0	~	0	*	0		•	120
ONTR	DAYS	NMOC	.0	* * * *	.0	0.	.0	48.	0.	0.		33.	.0	18.	0.		0.	0	.0	0	.77	.0	.0		.0		.0	.0		0.	85.		95.	.0	56.	0	58.
3	DAYS	NMOG	0	305	•	0	0	48	0	0	0	33	0	53	0	0	0	0	0	0	77	0	0	0	0	0	0	0	0	0	85	0	190	0	99	0	115
4	MAINT	HRS	14.	0	0.	2.	0.	0.	34.	0.	3.	14.	5.	23.		2	5.	.0	2.		2.	,	0.	43.	5.	10.		2.	0.	2.	.0	1.	3.	7.		.9	3
SHI	MAINT	HRS	144	0	0	~	0	0	34	0	9	95	S	90	*	124	S	0	~	53	~	12	0	43	2	108	*	N	0	9	0	1	S	1	99	#	6
	DAYS	NACC	152,	0.	0	45.	.0	• 0	234.	0	*0*	177.	200.	140.	71.	122.	.69	.0	116.	136.	48.	* * *	0.	.56	240.	141.	83.	. 4×.	.0	128.	0	.66	39.	221.	38.	77.	21.
۵.	TOTAL	NMOO	1522	0	0	45	0	0	234	0	61	1236	200	559	71	2815	69	0	116	1498	48	132	0	96	240	1547	83	34	0	385	0	66	77	221	538	537	62
	_																																				
	MAINT	HRS	6	0	0	•	10.	50.	30.	3.	0	16.	0	6	2.	13.	•	3.	0	0	•	1.	S.	1.	.0	•	0	0		0.	0	0	0	•	÷	0	·
OLSH	MAINT	HAS	34	0	0	0	10	20	30	m	0	81	0	55	a	126	0	9	0	0	0	1	3	۵	0	0	0	0	0	0	0	0	0	0	11	0	٥
~	DAYS	NMOG	1.	0	.0	0	.00		.0	.0	۰.	12.	0	÷	.99	7.	0	.99	0	0	0.	46.	21.	0	0	0.	0	0	0	0.	.0	0	0.	0	.0	0.	c
	DAYS	DOWN	5	0	c	c	æ	σ	œ	0	c	58	c	26	99	99	c	132	c	0	0	46	23	c	0	c	0	c	c	c	c	c	c	c	c	c	c
a.	AVG	HRS	14.	•	5.	0.0	3.	.0	2.	.0	. +	14.	0.	24.	.9	2.	.0	5.	5.	5.	2.	*	8.	8.	7.	13.	0.	0.	0.	. +	• 0	٥.	3.	. 49	. 4	•	2.
	MAINT	HRS	476	t	15	c	8	0	1	0	15	128	0	205	38	23	0	35	ic.	59	8	148	9	ď	tt	120	0	0	0	1	0	0	y	49	316	43	12
1 6 0 1	DAYS	NMCC	1.	3.	1:	0.	11.	•0	3.	.0	27.	11.	0.	8.	5.	3.	0.	. +	.9	0.	.0	7.	0.	0.	19.	• 0	0.	0.	0	.8	0.	.0	1.	.,	٠,	12.	0.
		₩F00	47	m	*	c	11	0	10	0	101	101	0	163	31	35	0	27	9	~	0	247	0	0	113	t	0	0	0	15	0	c	~	±	174	61	0
	FIC		61	LB	Ľ	10	L	N. N.	T.	MS	M6	NC	NO	N8	P1	44	9 _d	74	64	90	36	30	30	45	S.	0.0	01	Q.	T.	91	I.	¥	W.3	5A	58	3F	24

SUMMARY OF DATA
FILOT SHIP # 6 VS. CONTROL SHIP # 1

	4 1 1	AVG	HRS	.0	•	.0	•	3.	5.	•	•	•				•	•	•				2							•	•				•		: ?	2	18.	•			
		TOTAL	HAIN	•	28	•	•	10	*						•	0		2.				15	0	0	0	600		0	0		2 20	18	•		:	. ~	#	36	-			•
	ONTR	AVG	DOWN		101.	•		71.	51.	•	•	•				•	•					31.							•		52.	56.	17.	••		49.	58.	.66	•			
RED		TOTAL	DOWN	•	206	•	•	213	102	0 0		-			•	•	0 9	901	970			93	•	•	0	25	• •	•	0	0 :	200	282	17		9 6	49	116	197				•
W																																										
0 5			HRS			13.	2	•	48.	•	•	•			•			•				. 9		•	22.	•	::		•	,			•	••	•			÷.	•			
	SHI	TOTAL	HRS	•	0	13	N	0	48	0		-		. 0	0	0	0 5	20	0			12	0	0	99			0	0	N C		0	0	5 6		~	0	+ .	0 0		00	0
		AVG	DOWN	.0		14.	32.	•	59.	•	•	•	•		.0	•	•	.00			0	62.	.0	•	42.	•	• •	.0	•		• •	.0	•	••	•	47.	0	87.	•	•		•
	a	TOTAL	NAOO	0	0	14	32	0	29	0 (0	0	0	110	6	2 -		124	0	0	125	0 0	0	0	0!	,	0 0	0	0	- c		44	0	87			0	0
	1 P	AVG	HRS	25.	.66	.0	.0	•	•	•	•0	•	•		.0	0.		•	•			. 2	0.	.0		••	• •	5.		. 0	, ,	0	•		•	• •	6	13.	13.			.0
		TOTAL	HRS	52	1087	0	0	0	0	0 (0	0	- (0 0	0 -	0 0	۱ ۸	15	0	0	17	0 -	• 0	10	e (0!	20	0	0			0	0	56	878	130	6	0
	ONTRO	AVG	NAVS	13.	15.	0.	.0	.0	•	•	•	•			0	0.	32.	•	•	18.		0	0.	••		•	• •	•			, c			• •	•		.64	ر. ا	'n.	.1.		•
RED		TOTAL	DOWN	13	164	0	c	c	0	c (· c	c	c	c	33			18		c	C	C	ю (0 0	00	c	c .		21	0	-			00	43	10	250	125	0	0
1 L L L L L L L L L L L L L L L L L L L	a	AVG	HRS	;	7.	.0	16.		• 0	•		•		0	.0	. ,		.01	.11	16.	1:	. 10	1.	5.		• •	3.	٠,	3.	•		::	0.	•	• •	5:	1:	23.	•	• 0		3.
101		TOTAL	HRS	14	250	0	16	62	0	0	-	+ 0		00	0	32	28	0.00	000	114		90	1	27	115	0 -	. .c	130	25	0.	01	-	0	0 3	0 0	2	1	319	451	30	31	2
	1 6 0 1	AVG	DAYS	:	.94	0.	1:	13.	•0	•	•	• •	•	• •		٠.	•	•	• •		26.	15.	71.	10.	٠.	•	18.	23.				32.	0	•	•••		23.	5.	· ·		. 10	
	د	TOTAL	DAYS	~	1660	0	1	192	0	0	5 1	00		0	0	14	0	99	000	25	56	493	7.1	6+	39	0 0	36	539	9	0	06	32	0	0 0		t :	23	19	544	0 60	53	13
		£10	CODE	99	61	4	3	25	FB	2	67	3:		45	47	18	12	2 6	1 6	0 0	90	00	36	96	E.C.	01	60	81	82	9	3 4	2	I	ž	3 1	2 2	7 %	5.A	28	25	P E	5.

SUMMARY OF DATA
PILOT SHIP # 6 VS. CONTROL SHOP #

0

0

0

265 265 265 117 117 AVG DOWN 58. 738. 101. 111. 111. 111. 112. 112. 113. 1 101 228 111 112 656 656 656 484 484 498 1216 AVG MAINT HRS TOTAL MAINT HRS DAYS DAYS AVG MAINT HRS TOTAL MAINT HRS AVG DAYS COTAL DAYS DOWN AVG MAINT HRS S H I TOTAL MAINT HRS 260 16 62 62 0 115 0 1 0 150 25 16 AVG DAYS DOWN DAYS EIC

PILOT SHIP # 6 VS. CONTROL SHIP # 3

	A AVG	
	R O L S TOTAL MAINT	
	AVG DAYS	6 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
RED	TOTAL DAYS DOWN	38 94 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
DEFE	AVG MAINT HRS	
	S H I TOTAL MAINT HRS	00 m v 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	PILOT AVG DAYS DOWN	00440000000000000000000000000000000000
	TOTAL DAYS	00000000000000000000000000000000000000
	I P AVG MAINT HRS	
	L S H TOTAL MAINT HRS	
	N T R O AVG DAYS DOWN	0 H 0 C 0 0 0 C 0 C 0 C 0 C 0 C 0 C 0 C
R E	C D TOTAL DAYS DOWN	6 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
FER	AVG MAINT HRS	* * * ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° °
NOTO	S H I P	25 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	AVG DAYS	+ \$ c + \$ 0 0 0 0 0 \$ 4 0 0 0 0 0 0 0 0 0 0 0 0
	TOTAL DAYS JOWN	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	E.IC CODE	### J5# 0114 04 # # 8 4 7 # 8 9 1 8 4 7 7 7 8 9 8 9 9 9 9 5 7 7 3 3 3 3 3 3 4 3 4 4 8 8 8 8 8 8 8 8 8 8

SUMMARY OF DATA
PILOT SHIP # 6 VS. CONTROL SHIP # 4

	4 1 1	AVG	HRS	2	2.		;		11.					6	3.	11.	~ .			12.	3	.9		2	· ·		2	.:		19.	13.		~ .			2		: .	62.	16.		
	S 7 0	HATAL	HRS	*	~	2	a 0 :	,	80	0 3	• •			6	28	11	10	01	1.	61	22	22	~	~ :	36	0	•	٠. ٩	6	5.8	13	0	n c	14	9	~ .	•	2	247	127	0 0	
0	ONTR	AVG	NMOO	197.	190.	409	.080	. +6	160.		160.	17.	545	128.	78.	429.	123.	• • • • • • • • • • • • • • • • • • • •	12.	129.	. 46	87.	35.	59.	399	0.	305.	58.	12.	47.	.0	.0	131.	139.	.05	.68	.06	56.	546.	93.	82.	
ERRE	٥	TOTAL	NMOO	393	190	604	159	187	1279	250	902	281	245	128	702	459	740	000	700	949	661	349	35	56	399	0	1523	5.8	36	141	0	0	393	556	150	68	270	26	982	144	82	
0 5 6	4	MATNT	HRS		.0	13.	2	0	. 6		•	•		.0	.0		•	•	. 91	18.	5.	.0		•	• •		22.						N C		.0				;			
	H S L	MATAL	HRS	0	0	13	~	0	9 6	0	-		0	0	0	0	0	0 0	3.0	35	6	0	0	0 .	21	0	99	00	0	0	0	0 0	NC	0	0	0	0 0	o ~	*	0	00	
	PILO	AVG	NMOU	.0	•	14.	32.	•	59.	•	•	•		0	.0	.0	•	•		39	45.	0.			. 79		42.	•							0			47.	87.	•	••	
		TOTAL	NOW	0	0	7	32	-	29	0			0	0	0	0	c .	0 0	9	11	90	•	0	0	124	0	125	00	00	0		C !	+ 0	0	0	0	0 0	41	87	0	00	
	4 1	AVG	HRS	.0	.6	34.	.6	45.	. 6	• • •	•	• •		. 9	7.	•		10.	•		8	0.	.0	•	; -		5.	•		7.		••	•••	: :			•	• •		10.	::	
	OLS H	TOTAL	HRS	0	80	34	28	167	36	> :	+ c	· ·	, 0	9	22	0	~ ;	30		21	10	0	0	0	cc -	· N	113	00	0	99	16	0	0 -		C	0	0 0	00	0	148	00	
	ONTR	AVG	DMOC	0.	. 5	20.	٠,	3.	ຕໍ່ດ	•	• •	• -		.:	;	0	12.	•	• •	1:	28.	.0	0			14.	•	••		1.		•	•	t 8 .	.0	•			0		.0.	
د د ع		TOTAL	Melod	c	4	20		10	21		= c		4 6	-	11	c	54	- 0	- c	6	55	c	c	0 6		14	124	c c	0	1		- 0		t b	c	0	00		c	102	601	
DEFE	4	AVG	1KS	;	7.	0.	16.	•	•	•	• •	• -		.0	• 0	0.	• •	· .	•	11.	3.	16.	1:	•	• ir	::	.	· ·	, w	• 9	. 3	. 0	• •		1:	•	• •		23.		. 6.	
N 0 1	SHI	TOTAL	HRS	14	260	0	16	29	0 0	٠,	- 0	۰,	• 0	0	0	0	32	0 0	808	96	28	114	1	000	27	8	115	ın c	9	130	52	91	100	0	-	0	= 0	, v	519	431	70	
	1601	AVG	DOMN	:	46.	0.	1.	13.	•	•	•			0	0.	.0	٠.	•			S	. 8	.92		10.	0	1:	17.	18.	23.	1.			0	32.				5.			
	۵	TOTAL	NMOG	~	1660	0		192	0 0	0	= =			0	0	0	14	- 0	3 6	30	45	26	92	0	64	0	39	17	36	539	9	40	00	0	32	0			14	550	2 6 8	
		EIC	300	GB	61	45	3	77	6	٠,٠	2.	57	N E	S. S.	9W	M7	88	2.	I d	2 4	9 d	P7	O.B.	3	3 40	×	MO	80	60	¥1	8.5	98	0 0	1 H	9	I.	¥ *	2 10	5A	56	5. F	

SUMMARY OF DATA
PILOT SHTP # 6 VS. CONTROL SHIP # 5

	H I P AVS MAINT HRS		. 0					•	•	•	• •		.0	2,		•	•	•	0	•	.0		2,	•	2,				.09
	TOTAL MAINT HRS	0 4	000	0	100	•	0	0	00		•	•	0	~	0	0	0	0		0	0		~	•	*	0	0	0	120
	DAYS DOWN			•	. 6		0	•	•	•	•		0	17.	•			•	•			•	85.		95.	0	•	•	58.
DEFERRED	TOTAL DAYS DOWN	0 8	0	0	0		0	0	•			•	0	77	0	0	•	0		0	•	•	82	0	190	0	•	0	115
	A AVG			0	• •		0	•	•		•		0.	.0	•		.0	•	. 22	. 0	.0	•	•	0	.0	. 4	•	•	0
	TOTAL MAINT HRS	0 4	0	0	0 0	. 0	0	0	0	co			0	0	12	0	•	0	99	0	0	0	0	0	0	7	0	0	0
	P I L O AVG DAYS DOWN	•	0.0					•	•		, 0		.0	•	62.	•	•	•	44.	•	.0	•	•	0	•	87.	•	.0	.0
	TOTAL DAYS DOWN	00	0	0	0 0		0	•	•;	- 6	0,0		0	0	124	0	•	0	145	0	0	0	0	0	0	87	c	0	0
	A AVG	•	• •		•		•0	12.	•	19.		.0	.0	.0	1.	2.	•		.0	.0	•	0.		0.	0.	0.	.0	•	0
	O L S H TOTAL MAINT HRS	00		•	0 0		0	36	0	115	0 0		0	0	-	S.	0	0	0	0	0	0	0	0	0	0	0	0	0
	DAYS DOWN	••	• •		•		.0	7.	•	11.			0.	.0	46.	21.	•	0	.0	0	•	•	.0	0.	.0	0	•	•	0
NOT DEFERRED	TOTAL DAYS DOWN	00	o e	0	0 0	. 0	0	21	0;	200	0 0		c	0	94	21	•	c .	-	9	c	0	0	c	c	0	0	c	0
	A A V G MAINT HRS		• •	1:	•		.0	÷	;	11.	3.	3.	1.	•0	3.	1:	5.	1.	•	.0	.0	1.	•0	0	2.	23.	. +	.6	3.
	S H I TOTAL MAINT HRS	250	. 0		0 0		0	32	28	96	114	2	1	0	90	1	27	~	115	0	0	1	0	0	2	319	431	70	31
	P I L O T TOTAL AVG DAYS DAYS JOWN DOWN	.66	• •	.0	• •		.0	2.	0		. 6	0	26.	.0	15.	71.	10.	0.	:	0.	0.	32.	0	0.	-:	5.	2.	t t	3.
	TOTAL DAYS JOWN	1660	00	0	00	. 0	0	14	0;	30	5, Y	, 0	26	0	493	71	40	0	39	U	•	32	0	0	1	67	544	59	33
	E1C	61	רנים	2	I E	N 2	Me	88	14	50	P6 P7	64	97	30	OD	30	36	Q.	S.	01	4	91	I	¥	E 23	SA	58	5F	24

SUMMARY OF DATA
PILOT SHIP # 7 VS. CONTROL SHIP #10

	H I P AVG MAINT HRS	:::	•••	•••		::			:::
	O L S TOTAL MAINT HRS	000	001		000	000		00	000
0	ONT R AVG DAYS DOWN	:::				::		122.	•••
ERRE	C O N T TOTAL AVG UAYS DAYS DOWN DOWN	000	00	000	000	000	000	122	000
DEF	AVG MAINT HRS	•••		•••				•••	•••
	S H I TOTAL MAINT HRS	000	00	000	000	001	000	00	000
	P I L O T AVG DAYS DOWN	:::	•••	• • •	•••	•••		• • •	•••
	TOTAL DAYS	000	00	000	000	000	N O O	00	000
	I P AVG MAINT HRS	•••	•••	• • •	• • •				•••
	O L S H TOTAL MAINT HRS	000	00	00:	+00	000	200	00	000
	AVG DAYS DOWN	•••					000	•••	•••
RRED	TOTAL DAYS DOWN	000	C 0	00	, 00	cc	,	ce	000
DEFE	AAVG MAINT HRS	•••	•••					• • •	.:.
1 0 N	S H I TOTAL MAINT HRS	00#	00	0 01	0 0 1	299	700	00	0 4 0
	I L O T AVG DAYS DOWN	•••	•••		• • •	 ดัติ 	• • •	• • •	•••
	TOTAL DAYS DOWN	000	00	0 - 0		71		00	000
	EIC	893	3 X X	8 6 8	6 2 2	8 8 8	6 G	H 9	* 7 Z

SUMMARY OF DATA
PILOT SHIP # 7 VS. CONTROL SHIP #11

NOT DEFERBED

-	AVG	MAINT	HES	14.	7.		;			18.	33	3.	17.	•	•	13.	18.	27.	3.	11.	0	10.		~		•		~	2		;	
	TOTAL	MAINT	HRS	69	13	0	1	•	•	19	233	10	17	9	•	13	35	669	40	67	•	165	13		0	11	m	15	*	N :	*	0
- 2	AVG	DAYS	NAOG	111.	154.	•	220.			15.	183,	92.	*	161,		184.	66	190.	85.	233.	.0	54.	114.	6		397.	219.	115.	:	35.	23.	.0
•	TOTAL	DAYS	NMOO	57	307	•	044	•	•	15	1283	92	*	181	•	184	197	4942	1312	1397	0	426	227	18	•	164	219	577	148	35	23	0
a	AVG	MAINT	HRS		0.	0.	0.	•		•	•	•		.0			.0	.0	•		0		•	•			•	•	•	•		•
1	TOTAL	MAINT	HRS	0	0	0	0	0	c	0	0	0	0	0	0	0	0	0	0	0	0	M	0	0	0	0	0	0	0	0	0	c
	AVG	DAYS	NMOU		•	•	0.	.0	•	•		.0	•	.0	•				•	•	.0	2.	0	.0	.0	•	•	.0	•	•		0
	TOTAL	DAYS	NAOC	0	0	•	0	c	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0
4	AVG			•	1:	3.	0.	.0	.0	1:	***	.0	3.	2.	8	20.	0.	3.	.0	.0	3.	.9	2.	2.	0.	0.	10.	0.	0.	0.	0.	0
	TOTAL	TNIVE	HRS	9	2	10	0	0	0	1	131	0	6	8	68	20	0	80	0	0	80	42	2	æ	0	0	10	0	0	0	0	0
-	AVG	DAYS	NMOC	48.	57.	.9	0.	•	0	2.	.04	.0	13.	0	.9	1.	0	138,	.0	0.0	56.	28.	.9	.0	0	0	21.	.0	.0	0	•	0
	TOTAL	DAYS	DOWN	t t	113	54	•	0	0	^	119	0	04	0	61	1	0	414	c	0	99	367	9	~	0	c	21	0	0	C	c	c
d I H S	AVG	TAIAT	HRS	0.	0.0	0.	;	8.	0.	0.	.0	۶.	3.	0.	٠,	.9	0.	8.	.0	.9	.0		0	14.	5.	10.	0.	.0	0.	0.		0.
	TOTAL			0	0	0	t	80	0	0	o	~	3	0	19	9	0	62	0	9	0	21	0	14	71	50	0	0	0	0	c	0
	TUTAL AVG	DAYS	NAOG	0.	.0	.0	.0	٥.	0.	0.	0.	1:	0.	0.	1.	93.	0	2.	0.0	3.	.0		0.	1.	1.	. 4	0	.0	٥.	0.	0.	
C	TUTAL	JAYS	UOWN	c	c	0	0	0	o	0	0	1	9	ت	1	63	c	17	0	ю	0	~	0	1		11	0	0	0	د	c	9
		CODE		6A	20	dr.	-	۲6	41	M7	118	61	P1	P3	17d	96	74	84	64	90	20	an	35	36	×5	ME	60	21	N.	5MG	¥	5

SUMMARY OF DATA
PILOT SHIP # 7 VS. CONTROL SHIP #12

	A AVG	£ • • • • • • • • • • • • • • • • • • •		200000	
	TOTAL MAINT HRS	2300000	53000	4000000	00000#0#00
0	AVG DAYS DOWN		0000	8000000	000000000000000000000000000000000000000
DEFERRE	TOTAL DAYS DOWN	1, 1000000	10000		0000000000
	AVG MAINT HRS				000000000000000000000000000000000000000
	S H I TOTAL MAINT HRS	000000	00000	0000000	
	P I L O T AVG DAYS DOWN			666660	0000000000
	TOTAL DAYS DOWN	000000		0000000	000000000
	A I P AVG MAINT HRS	**************************************		ကြို့ကိုလိုက်လိုင်ချိန်	110000000000000000000000000000000000000
	O L S H TOTAL WAINT HRS	9000 0 0 0 0	201000	162 98 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	2,1000000000
	ONT AVG	28000.00			
NOT DEFERRED	TOTAL DAYS DOWN	800080	212	16 149 155	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	P AVG MAINT	0003			
	S H I TOTAL MAINT HRS	000+000	- M N O B W	2000010	75514
	I L U T AVG DAYS DOWN	•••••	94.004.6	000000	4446000000
	TOTAL UAYS DOWN	000000	040016	0100000	000000000000000000000000000000000000000
	E1C CODE	5591326	000000	7 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	1 X Z L Q O L Q X V

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